APPENDIX C
Transportation Analysis Data, Figures, & Synchro Output Reports

443 Electronics Parkway, Liverpool, NY 13088
Phone 315.457.5200 · Fax 315.451.0052

JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 05/13/21
CHCKD. BY	ASK DATE
SUBJECT	AM Peak Hour
INTERSECTION	Arsenal St & Bellew Ave

Existing (2021) Peak Hour Traffic Volumes

	Bellew Ave Southbound					*Arsenal Street Westbound*					*Bellew Ave Northbound*					*Arsenal Street Eastbound*					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
7:45 AM	22	21	22	0	65	4	102	20	0	126	5	1	7	0	13	18	112	15	0	145	349
8:00 AM	19	10	9	0	38	3	93	10	0	106	6	0	6	0	12	7	102	13	0	122	278
8:15 AM	14	8	15	0	37	5	105	4	0	114	4	3	6	0	13	7	102	11	0	120	284
8:30 AM	28	12	8	0	48	7	120	13	0	140	10	4	9	0	23	4	106	13	0	123	334
TOTAL	83	51	54	0	188	19	420	47	0	486	25	8	28	0	61	36	422	52	0	510	1245
PHF	--	--	--	--	0.72	--	--	--	--	0.87	--	--	--	--	0.66	--	--	--	--	0.88	0.89
Percent HV (%)	1%	12%	2%	0	4%	0%	3%	0%	0	2%	8%	13%	25%	0	16%	8%	3%	0	0	3%	4%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes

Growth Rate = 1.0 %

	Bellew Ave Southbound					*Arsenal Street Westbound*					*Bellew Ave Northbound*					*Arsenal Street Eastbound*					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	101	62	66	0	229	23	512	57	0	593	31	10	34	0	74	44	515	63	0	622	1257
(Heavy Vehicles)	1	7	1		10		15			13	2	1	9		12	4	15			20	54

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	Bellew Ave Southbound					*Arsenal Street Westbound*					*Bellew Ave Northbound*					*Arsenal Street Eastbound*					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	101	62	66	0	229	23	512	57	0	593	31	10	34	0	74	44	515	63	0	622	0
Vehicle Dist. (Heavy Vehicles)	1	7	1		10	0	15	0		15	2	1	9		12	4	15	0		20	0

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 05/13/21
CHCKD. BY	ASK DATE
SUBJECT	PM Peak Hour
INTERSECTION	Arsenal St & Bellew Ave

Existing (2021) Peak Hour Traffic Volumes

	Bellew Ave Southbound					Arsenal Street Westbound					Bellew Ave Northbound					Arsenal Street Eastbound					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
3:30 PM	27	6	7	0	40	7	184	13	0	204	15	17	9	0	41	14	197	24	0	235	520
3:45 PM	33	12	11	4	60	10	200	12	2	224	16	15	16	3	50	5	171	30	0	206	540
4:00 PM	38	11	13	0	62	7	239	17	0	263	20	26	23	1	70	3	193	29	0	225	620
4:15 PM	30	4	8	1	43	8	220	9	0	237	15	13	17	3	48	4	215	34	0	253	581
TOTAL	128	33	39	5	205	32	843	51	2	928	66	71	65	7	209	26	776	117	0	919	2261
PHF	--	--	--	--	0.83	--	--	--	--	0.88	--	--	--	--	0.75	--	--	--	--	0.91	0.91
Percent HV (%)	0%	6%	0%	0	1%	0%	1%	2%	0	1%	2%	1%	2%	0	1%	7%	1%	1%	0	1%	1%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes

Growth Rate = 1.0 %

	Bellew Ave Southbound					Arsenal Street Westbound					Bellew Ave Northbound					Arsenal Street Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	156	40	48	6	250	39	1029	62	2	1132	81	87	79	9	255	32	947	143	0	1121	2759
(Heavy Vehicles)		2			2		10	1		13	2	1	2		4	2	9	1		16	35

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	Bellew Ave Southbound					Arsenal Street Westbound					Bellew Ave Northbound					Arsenal Street Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	156	40	48	6	250	39	1029	62	2	1132	81	87	79	9	255	32	947	143	0	1121	0
Vehicle Dist. (Heavy Vehicles)	0	2	0		2	0	10	1		10	2	1	2		4	2	9	1		16	0

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JOB	225.060.002 Watertown Public Safety Building Access Study		
SHEET NO.	1	of	1
CALC. BY	ETC	DATE	05/13/21
CHCKD. BY	ASK	DATE	
SUBJECT	AM Peak Hour		
INTERSECTION	S. Massey St & Ives St		

Existing (2021) Peak Hour Traffic Volumes

	S. Massey St Southbound					Ives St Westbound					S. Massey St Northbound					N/A					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
7:15 AM	0	6	12	0	18	15	--	2	0	17	2	9	--	0	11	--	--	--	--	--	46
7:30 AM	0	7	24	0	31	27	--	2	0	29	1	8	--	0	9	--	--	--	--	--	69
7:45 AM	0	9	14	1	24	16	--	3	0	19	6	16	--	0	22	--	--	--	--	--	65
8:00 AM	0	20	10	0	30	13	--	3	0	16	5	20	--	0	25	--	--	--	--	--	71
TOTAL	0	42	60	1	103	71	0	10	0	81	14	53	0	0	67	--	--	--	--	--	251
PHF	--	--	--	--	0.83	--	--	--	--	0.70	--	--	--	--	0.67						0.88
Percent HV (%)	0%	0%	3%	0	2%	4%	0%	0%	0	4%	7%	0%	0%	0	1%						2%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes

Growth Rate = 1.0 %

	S. Massey St Southbound					Ives St Westbound					S. Massey St Northbound					N/A					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	0	51	73	1	126	87	0	12	0	99	17	65	0	0	82						254
(Heavy Vehicles)			2		2	3				3	1				1						7

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound					Ives St Westbound					S. Massey St Northbound					N/A					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	0	51	73	1	126	87	0	12	0	99	17	65	0	0	82	0	0	0	0	0	0
Vehicle Dist. (Heavy Vehicles)	0	0	2		2	3	0	0		4	1	0	0		1	0	0	0		0	0

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 05/13/21
CHCKD. BY	ASK DATE
SUBJECT	PM Peak Hour
INTERSECTION	S. Massey St & Ives St

Existing (2021) Peak Hour Traffic Volumes

	Bellew Ave Southbound					Arsenal Street Westbound					Bellew Ave Northbound					N/A					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
4:00 PM	--	11	20	0	31	16	--	10	0	26	4	12	--	1	17	--	--	--	--	--	74
4:15 PM	--	12	39	0	51	15	--	7	0	22	3	8	--	0	11	--	--	--	--	--	84
4:30 PM	--	18	28	0	46	16	--	9	0	25	3	13	--	0	16	--	--	--	--	--	87
4:45 AM	--	17	26	0	43	21	--	1	0	22	3	11	--	0	14	--	--	--	--	--	79
TOTAL	0	58	113	0	171	68	0	27	0	95	13	44	0	1	58	--	--	--	--	--	324
PHF	--	--	--	--	0.84	--	--	--	--	0.91	--	--	--	--	0.85						0.93
Percent HV (%)	0%	0%	0%	--	0%	3%	0%	0%	--	2%	0%	0%	0%	--	0%	0%	0%	0			1%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes

Growth Rate = 1.0 %

	Bellew Ave Southbound					Arsenal Street Westbound					Bellew Ave Northbound					N/A					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	0	71	138	0	209	83	0	33	0	116	16	54	0	1	71						327
(Heavy Vehicles)					0	2				2					0						2

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	Bellew Ave Southbound					Arsenal Street Westbound					Bellew Ave Northbound					N/A					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	0	71	138	0	209	83	0	33	0	116	16	54	0	1	71	0	0	0	0	0	0
Vehicle Dist. (Heavy Vehicles)	0	0	0		0	2	0	0		2	0	0	0		0	0	0	0		0	0

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JOB	225.060.002 Watertown Public Safety Building Access Study		
SHEET NO.	1	of	1
CALC. BY	ETC	DATE	10/06/21
CHCKD. BY	ASK	DATE	
SUBJECT	AM Peak Hour		
INTERSECTION	S. Massey Street & Pine Street/W. Ten Eyck Street		

Existing (2021) Peak Hour Traffic Volumes

	S. Massey St Southbound					W. Mullin St Westbound					S. Massey St Northbound					W. Mullin St Eastbound					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
7:15 AM	1	17	2	0	20	0	1	0	0	1	0	21	3	0	24	4	4	1	0	9	54
7:30 AM	0	11	3	0	14	2	2	0	0	4	2	23	2	0	27	9	1	0	0	10	55
7:45 AM	0	15	2	0	17	1	5	0	0	6	4	23	4	0	31	5	7	1	0	13	67
8:00 AM	0	11	5	0	16	2	4	0	2	8	4	13	0	0	17	2	6	1	0	9	50
TOTAL	1	54	12	0	67	5	12	0	2	19	10	80	9	0	99	20	18	3	0	41	226
PHF	--	--	--	--	0.84	--	--	--	--	0.59	--	--	--	--	0.80	--	--	--	--	0.79	0.84
Percent HV (%)	0%	4%	0%	0	3%	0%	0%	0%	0	0%	10%	3%	0%	0	3%	5%	0%	33%	0	5%	3%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes

Growth Rate = 1.0 %

	S. Massey St Southbound					W. Mullin St Westbound					S. Massey St Northbound					W. Mullin St Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	1	66	15	0	82	6	15	0	2	23	12	98	11	0	121	24	22	4	0	50	228
(Heavy Vehicles)	0	3	0		2	0	0	0		13	1	2	0		4	1	0	1		2	22

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound					W. Mullin St Westbound					S. Massey St Northbound					W. Mullin St Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	1	66	15	0	82	6	15	0	2	23	12	98	11	0	121	24	22	4	0	50	0
Vehicle Dist. (Heavy Vehicles)	0	3	0		2	0	0	0		0	1	2	0		4	1	0	1		2	9

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 10/06/21
CHCKD. BY	ASK DATE
SUBJECT	PM Peak Hour
INTERSECTION	S. Massey Street & W. Mullin Street

Existing (2021) Peak Hour Traffic Volumes

	S. Massey St Southbound					W. Mullin St Westbound					S. Massey St Northbound					W. Mullin St Eastbound					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
4:00 PM	1	16	1	0	18	0	4	0	2	6	3	14	6	0	23	12	5	3	0	20	67
4:15 PM	3	16	4	0	23	0	4	0	0	4	0	13	7	0	20	19	8	0	0	27	74
4:30 PM	3	20	0	0	23	0	2	0	0	2	1	12	4	0	17	21	5	0	0	26	68
4:45 PM	4	17	3	0	24	1	5	0	1	7	2	15	5	0	22	14	9	1	0	24	77
TOTAL	11	69	8	0	88	1	15	0	3	19	6	54	22	0	82	66	27	4	0	97	286
PHF	--	--	--	--	0.92	--	--	--	--	0.68	--	--	--	--	0.89	--	--	--	--	0.90	0.93
Percent HV (%)	0%	0%	0%	0	0%	0%	0%	0%	0	0%	0%	0%	5%	0	1%	2%	0%	0%	0	1%	1%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes

Growth Rate = 1.0 %

	S. Massey St Southbound					W. Mullin St Westbound					S. Massey St Northbound					W. Mullin St Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	13	84	10	0	107	1	18	0	4	23	7	66	27	0	100	81	33	5	0	118	349
(Heavy Vehicles)	0	0	0		0	0	0	0		13	0	0	1		1	2	0	0		1	15

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound					W. Mullin St Westbound					S. Massey St Northbound					W. Mullin St Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	13	84	10	0	107	1	18	0	4	23	7	66	27	0	100	81	33	5	0	118	0
Vehicle Dist. (Heavy Vehicles)	0	0	0		0	0	0	0		0	0	0	1		1	2	0	0		1	2

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SHEET NO.	1 of 1
CALC. BY	ETC DATE 10/06/21
CHCKD. BY	ASK DATE
SUBJECT	AM Peak Hour
INTERSECTION	S. Massey Street & Pine Street/W. Ten Eyck Street

Existing (2021) Peak Hour Traffic Volumes

	S. Massey St Southbound					*W. Ten Eyck St Westbound*					*S. Massey St Northbound*					*Pine St Eastbound*					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
7:15 AM	0	25	2	0	27	3	1	0	0	4	0	26	0	0	26	0	0	1	0	1	58
7:30 AM	0	24	4	0	28	3	1	0	0	4	0	24	0	0	24	0	0	1	0	1	57
7:45 AM	1	28	2	0	31	4	2	0	0	6	0	20	0	0	20	0	0	0	0	0	57
8:00 AM	1	13	2	0	16	4	1	0	0	5	0	10	2	0	12	3	0	1	0	4	37
TOTAL	2	90	10	0	102	14	5	0	0	19	0	80	2	0	82	3	0	3	0	6	209
PHF	--	--	--	--	0.82	--	--	--	--	0.79	--	--	--	--	0.79	--	--	--	--	0.38	0.90
Percent HV (%)	0%	2%	0%	0	2%	7%	40%	0%	0	16%	0%	3%	0%	0	2%	33%	0%	0%	0	17%	4%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - NO BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound					*W. Ten Eyck St Westbound*					*S. Massey St Northbound*					*Pine St Eastbound*					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	2	110	12	0	124	17	6	0	0	23	0	98	2	0	100	4	0	4	0	7	211
(Heavy Vehicles)	0	2	0		2	1	2	0		13	0	3	0		2	1	0	0		1	19

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound					*W. Ten Eyck St Westbound*					*S. Massey St Northbound*					*Pine St Eastbound*					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	2	110	12	0	124	17	6	0	0	23	0	98	2	0	100	4	0	4	0	7	0
Vehicle Dist. (Heavy Vehicles)	0	2	0		2	1	2	0		4	0	3	0		2	1	0	0		1	10

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CHCKD. BY	ASK DATE
SUBJECT	PM Peak Hour
INTERSECTION	S. Massey Street & Pine Street/W. Ten Eyck Street

Existing (2021) Peak Hour Traffic Volumes

	S. Massey St Southbound					*W. Ten Eyck St Westbound*					*S. Massey St Northbound*					*Pine St Eastbound*					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
4:00 PM	0	23	3	0	26	3	1	0	0	4	0	27	0	0	27	0	1	0	0	1	58
4:15 PM	2	21	4	3	30	5	0	0	0	5	1	32	3	0	36	0	0	1	0	1	72
4:30 PM	0	17	0	1	18	5	1	0	0	6	2	40	1	0	43	1	1	0	1	3	70
4:45 PM	2	19	3	0	24	5	1	0	1	7	1	26	0	0	27	0	0	1	0	1	59
TOTAL	4	80	10	4	98	18	3	0	1	22	4	125	4	0	133	1	2	2	1	6	259
PHF	--	--	--	--	0.82	--	--	--	--	0.79	--	--	--	--	0.77	--	--	--	--	0.50	0.90
Percent HV (%)	1%	1%	1%	0	1%	0%	0%	0%	0	0%	0%	1%	0%	0	1%	0%	0%	0%	0	0%	1%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes

Growth Rate = 1.0 %

	S. Massey St Southbound					*W. Ten Eyck St Westbound*					*S. Massey St Northbound*					*Pine St Eastbound*					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	5	98	12	5	120	22	4	0	1	27	5	153	5	0	162	1	2	2	1	7	316
(Heavy Vehicles)	0	1	0		1	0	0	0		13	0	2	0		1	0	0	0		0	15

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound					*W. Ten Eyck St Westbound*					*S. Massey St Northbound*					*Pine St Eastbound*					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	5	98	12	5	120	22	4	0	1	27	5	153	5	0	162	1	2	2	1	7	0
Vehicle Dist. (Heavy Vehicles)	0	1	0		1	0	0	0		0	0	2	0		1	0	0	0		0	2

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 10/06/21
CHCKD. BY	ASK DATE
SUBJECT	AM Peak Hour
INTERSECTION	S. Bellew Ave & Waterman Drive

Existing (2021) Peak Hour Traffic Volumes

	S. Bellew St Southbound					Waterman Dr Westbound					S. Bellew St Northbound					Waterman Dr Eastbound					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
7:15 AM	3	18	16	0	37	4	0	0	0	4	0	1	0	0	1	0	0	0	0	0	42
7:30 AM	1	18	11	0	30	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	34
7:45 AM	2	38	14	0	54	2	0	0	0	2	0	7	0	0	7	0	0	2	0	2	65
8:00 AM	4	16	8	0	28	5	1	1	0	7	1	4	1	0	6	0	0	1	0	1	42
TOTAL	10	90	49	0	149	13	1	1	0	15	1	14	1	0	16	0	0	3	0	3	183
PHF	--	--	--	--	0.69	--	--	--	--	0.54	--	--	--	--	0.57	--	--	--	--	0.38	0.70
Percent HV (%)	20%	10%	6%	0	9%	15%	100%	100%	0	27%	1%	7%	1%	0	56%	0%	0%	67%	0	67%	4%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - NO BUILD

Growth Rate = 1.0 %

	S. Bellew St Southbound					Waterman Dr Westbound					S. Bellew St Northbound					Waterman Dr Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	12	110	60	0	182	16	1	1	0	18	1	17	1	0	20	0	0	4	0	4	185
(Heavy Vehicles)	2	11	4		17	2	1	1		13	0	1	0		11	0	0	3		3	44

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Bellew St Southbound					Waterman Dr Westbound					S. Bellew St Northbound					Waterman Dr Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	12	110	60	0	182	16	1	1	0	18	1	17	1	0	20	0	0	4	0	4	0
Vehicle Dist. (Heavy Vehicles)	2	11	4		17	2	1	1		5	0	1	0		11	0	0	3		3	36

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 10/06/21
CHCKD. BY	ASK DATE
SUBJECT	PM Peak Hour
INTERSECTION	S. Bellew Ave & Waterman Drive

Existing (2021) Peak Hour Traffic Volumes

	S. Bellew St Southbound					Waterman Dr Westbound					S. Bellew St Northbound					Waterman Dr Eastbound					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
3:15 PM	5	18	2	0	25	14	0	0	0	14	0	8	0	0	8	0	0	4	0	4	51
3:30 PM	1	6	6	0	13	7	0	0	0	7	0	35	0	0	35	0	0	2	0	2	57
3:45 PM	2	6	5	0	13	15	0	0	0	15	0	21	0	0	21	0	0	3	0	3	52
4:00 PM	3	5	6	1	15	35	0	0	0	35	0	13	0	0	13	0	0	5	0	5	68
TOTAL	11	35	19	1	66	71	0	0	0	71	0	77	0	0	77	0	0	14	0	14	228
PHF	--	--	--	--	0.66	--	--	--	--	0.51	--	--	--	--	0.55	--	--	--	--	0.70	0.84
Percent HV (%)	9%	26%	6%	0	15%	0%	0%	0%	0	0%	0%	9%	0%	0	9%	0%	0%	0%	0	0%	7%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - NO BUILD

Growth Rate = 1.0 %

	S. Bellew St Southbound					Waterman Dr Westbound					S. Bellew St Northbound					Waterman Dr Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	13	43	23	1	81	87	0	0	0	87	0	94	0	0	94	0	0	17	0	17	230
(Heavy Vehicles)	1	11	1		12	0	0	0		13	0	8	0		9	0	0	0		0	34

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Bellew St Southbound					Waterman Dr Westbound					S. Bellew St Northbound					Waterman Dr Eastbound					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
TOTAL	13	43	23	1	81	87	0	0	0	87	0	94	0	0	94	0	0	17	0	17	0
Vehicle Dist. (Heavy Vehicles)	1	11	1		12	0	0	0		0	0	8	0		9	0	0	0		0	21

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 10/06/21
CHCKD. BY	ASK DATE
SUBJECT	PM Peak Hour
INTERSECTION	Massey St & Proposed Access Road

Existing (2021) Peak Hour Traffic Volumes

	S. Massey St Southbound										S. Massey St Northbound										Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
7:00AM to 8:00PM		82			82					0	0	88	0	0	88					0	170
AM TOTAL					82	0	0	0	0	0	0	88	0	0	88	0	0	0	0	0	170
PHF	--	--	--	--	0.25	--	--	--	--	-	--	--	--	--	0.25	--	--	--	--	-	0.25
Percent HV (%)		26%		0	12%	0%	0%	0%	0	-	0%	9%	0%	0	8%	0%	0%	0%	0	-	10%
4:00PM to 5:00PM		91			91						0	8	0	0	84	0	0	0	0	0	175
PM TOTAL					91	0	0	0	0	0	0	8	0	0	84	0	0	0	0	0	175
PHF	--	--	--	--	0.25	--	--	--	--	-	--	--	--	--	0.25	--	--	--	--	--	0.25
Percent HV (%)	9%	26%	6%	0	11%	0%	0%	0%	0	-	0%	9%	0%	0	8%	0%	0%	0%	0	--	10%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - NO BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound										S. Massey St Northbound										Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
AM TOTAL	0	100	0	0	100	0	0	0	0	0	0	107	0	0	107	0	0	0	0	0	172
(Heavy Vehicles)	0	26	0		12	0	0	0		13	0	10	0		9	0	0	0			
PM TOTAL	0	0	0	0	111	0	0	0	0	0	0	0	0	0	102	0	0	0	0	######	177
(Heavy Vehicles)																					

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	S. Massey St Southbound										S. Massey St Northbound					0					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
AM TOTAL	18	0	0	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	#VALUE!
(Heavy Vehicles)	0	0	0		0	0	0	0		13	0	0	0		0	0	0	0		0	13
PM TOTAL	7	0	0	0	0	9	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0
(Heavy Vehicles)	0	0	0		0	0	0	0		13	0	0	0		0	0	0	0		0	13
TOTAL	0	100	0	0	100	0	0	0	0	0	0	107	0	0	107	0	0	0	0	0	0
Vehicle Dist. (Heavy Vehicles)	0	26	0		12	0	0	0		######	0	10	0		9	0	0	0		######	#VALUE!

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 03/10/22
CHCKD. BY	ASK DATE
SUBJECT	AM Peak Hour
INTERSECTION	Arsenal St & Tractor Supply Plaza

Existing (2022) Peak Hour Traffic Volumes

	Cedar Square Plaza From North					Arsenal Street From East					Tractor Supply Plaza From South					Arsenal Street From West					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App Total	
7:30 AM	1	0	1	0	2	4	104	2	0	110	2	1	5	0	8	8	129	5	0	142	262
7:45 AM	1	0	2	0	3	1	109	3	0	113	1	1	2	0	4	6	141	5	0	152	272
8:00 AM	2	0	1	0	3	6	86	4	0	96	3	0	2	0	5	7	110	5	0	122	226
8:15 AM	3	0	0	0	3	5	116	3	0	124	4	0	3	0	7	4	95	5	0	104	238
TOTAL	7	0	4	0	11	16	415	12	0	443	10	2	12	0	24	25	475	20	0	520	998
PHF	--	--	--	--	0.92	--	--	--	--	0.89	--	--	--	--	0.75	--	--	--	--	0.86	0.92
Percent HV (%)	--	--	--	--	0%	--	3%	--	--	3%	40%	100%	--	--	25%	8%	2%	--	--	2%	3%

Forecasted ETC+20 (2042) Peak Hour Traffic Volumes - NO BUILD

Growth Rate = 1.0 %

	Cedar Square Plaza From North					Arsenal Street From East					Tractor Supply Plaza From South					Arsenal Street From West					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App Total	
TOTAL	9	0	5	0	13	20	506	15	0	541	12	2	15	0	29	31	580	24	0	634	1217

(Heavy Vehicles)

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	Cedar Square Plaza From North					Arsenal Street From East					Tractor Supply Plaza From South					Arsenal Street From West					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App Total	
TOTAL	9	0	5	0	14	20	506	18	0	544	18	2	25	0	45	41	580	24	0	645	1248
Vehicle Dist.								+ 3			+ 6		+ 10			+ 10					
(Heavy Vehicles)							3%	17%			56%	100%	40%			29%	2%				

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JOB	225.060.002 Watertown Public Safety Building Access Study
SHEET NO.	1 of 1
CALC. BY	ETC DATE 03/10/22
CHCKD. BY	ASK DATE
SUBJECT	PM Peak Hour
INTERSECTION	S. Bellew Ave & Waterman Drive

Existing (2021) Peak Hour Traffic Volumes

	Cedar Square Plaza From North					Arsenal Street From East					Tractor Supply Plaza From South					Arsenal Street From West					Interval Totals
Period Starts	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App Total	
3:45 PM	4	0	3	0	7	0	221	15	0	236	15	0	16	0	31	15	183	2	0	200	474
4:00 PM	5	0	3	0	8	1	252	7	0	260	12	1	18	0	31	20	205	1	0	226	525
4:15 PM	3	0	4	0	7	1	231	12	0	244	12	0	30	0	42	19	197	0	0	216	509
4:30 PM	4	0	5	0	9	1	272	10	0	283	16	2	20	0	38	17	232	0	0	249	579
TOTAL	16	0	15	0	31	3	976	44	0	1023	55	3	84	0	142	71	817	3	0	891	2087
PHF	--	--	--	--	0.86	--	--	--	--	0.90	--	--	--	--	0.85	--	--	--	--	0.89	0.90
Percent HV (%)	--	--	--	--	--	--	1%	2%	--	1%	--	--	--	--	--	3%	1%	--	--	1%	1%

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - NO BUILD

Growth Rate = 1.0 %

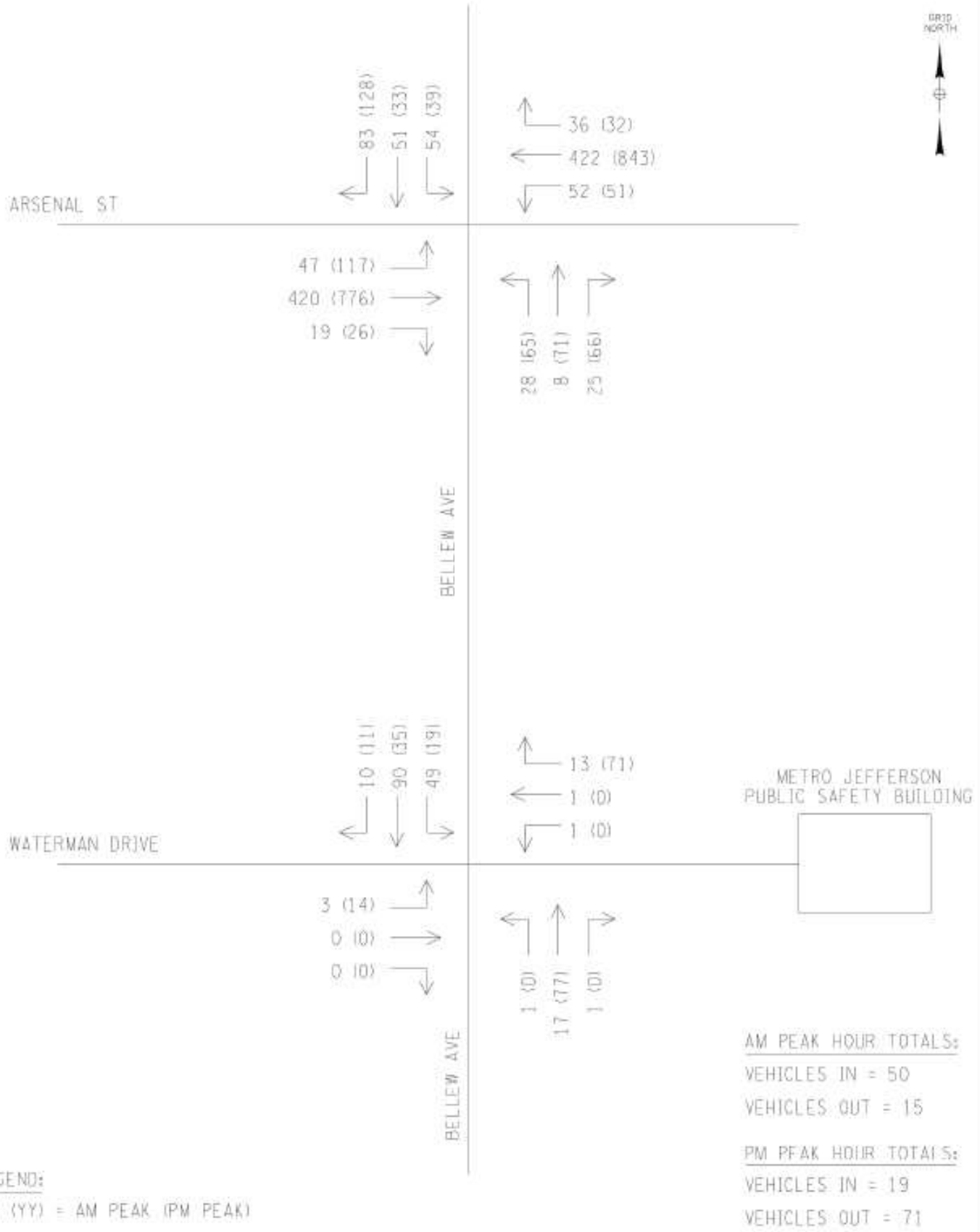
	Cedar Square Plaza From North					Arsenal Street From East					Tractor Supply Plaza From South					Arsenal Street From West					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App Total	
TOTAL	20	0	18	0	38	4	1191	54	0	1248	67	4	102	0	173	87	997	4	0	1087	2546

(Heavy Vehicles)

Forecasted ETC+20 (2041) Peak Hour Traffic Volumes - BUILD

Growth Rate = 1.0 %

	Cedar Square Plaza From North					Arsenal Street From East					Tractor Supply Plaza From South					Arsenal Street From West					Interval Totals
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App Total	
TOTAL	20	0	18	0	38	4	1191	55	0	1250	69	4	105	0	178	96	997	4	0	1097	2563
Vehicle Dist.								+ 1			+ 2		+ 3			+ 9					
(Heavy Vehicles)							1%	2%			3%		3%			9%	1%				



AM PEAK HOUR TOTALS:

VEHICLES IN = 50

VEHICLES OUT = 15

PM PEAK HOUR TOTALS:

VEHICLES IN = 19

VEHICLES OUT = 71

LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

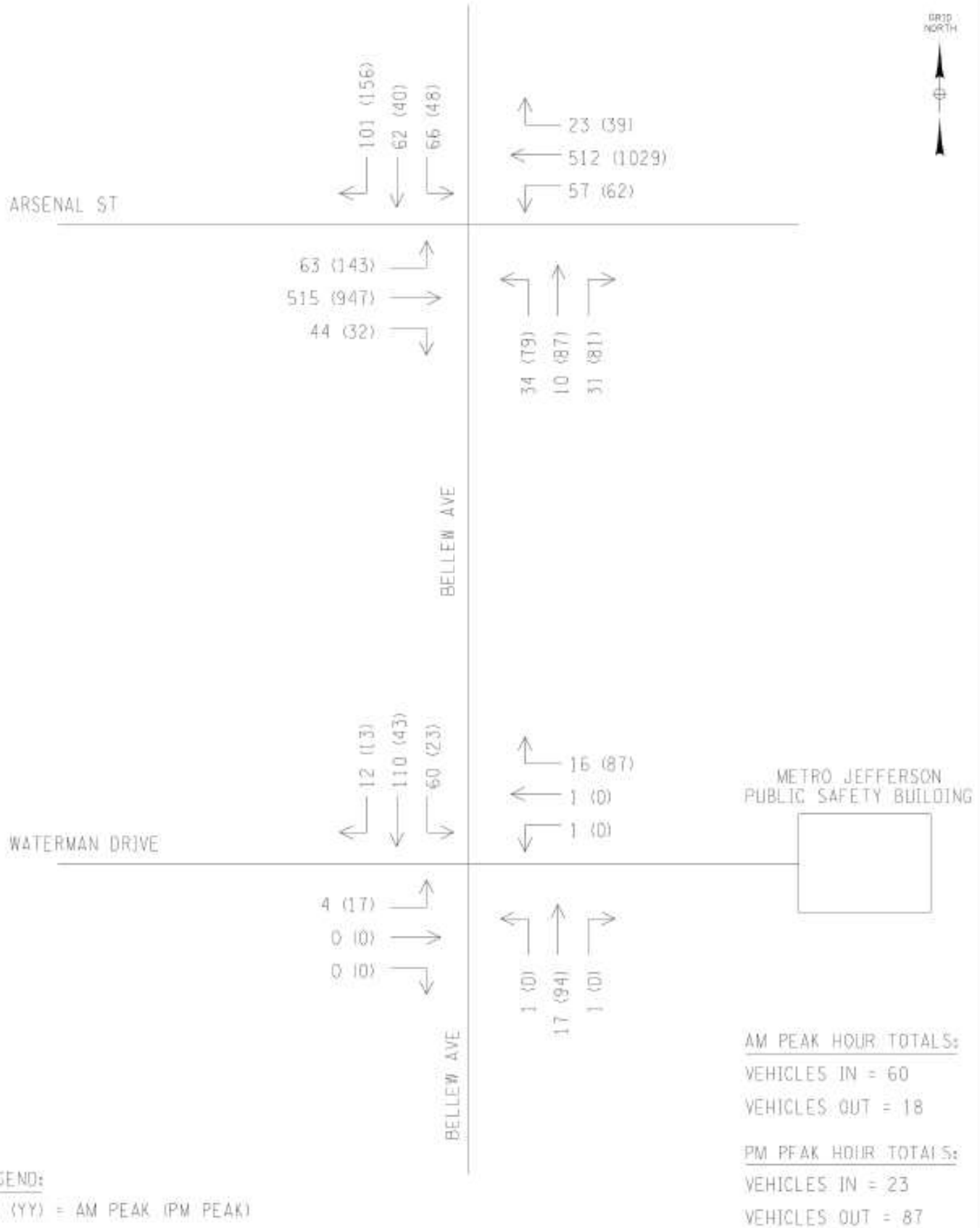
JEFFERSON COUNTY

PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

(INTERSECTION: S. BELLEW AVE & WATERMAN DRIVE EXISTING CONDITIONS

DATE: 9/21/2021



AM PEAK HOUR TOTALS:

VEHICLES IN = 60

VEHICLES OUT = 18

PM PEAK HOUR TOTALS:

VEHICLES IN = 23

VEHICLES OUT = 87

LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

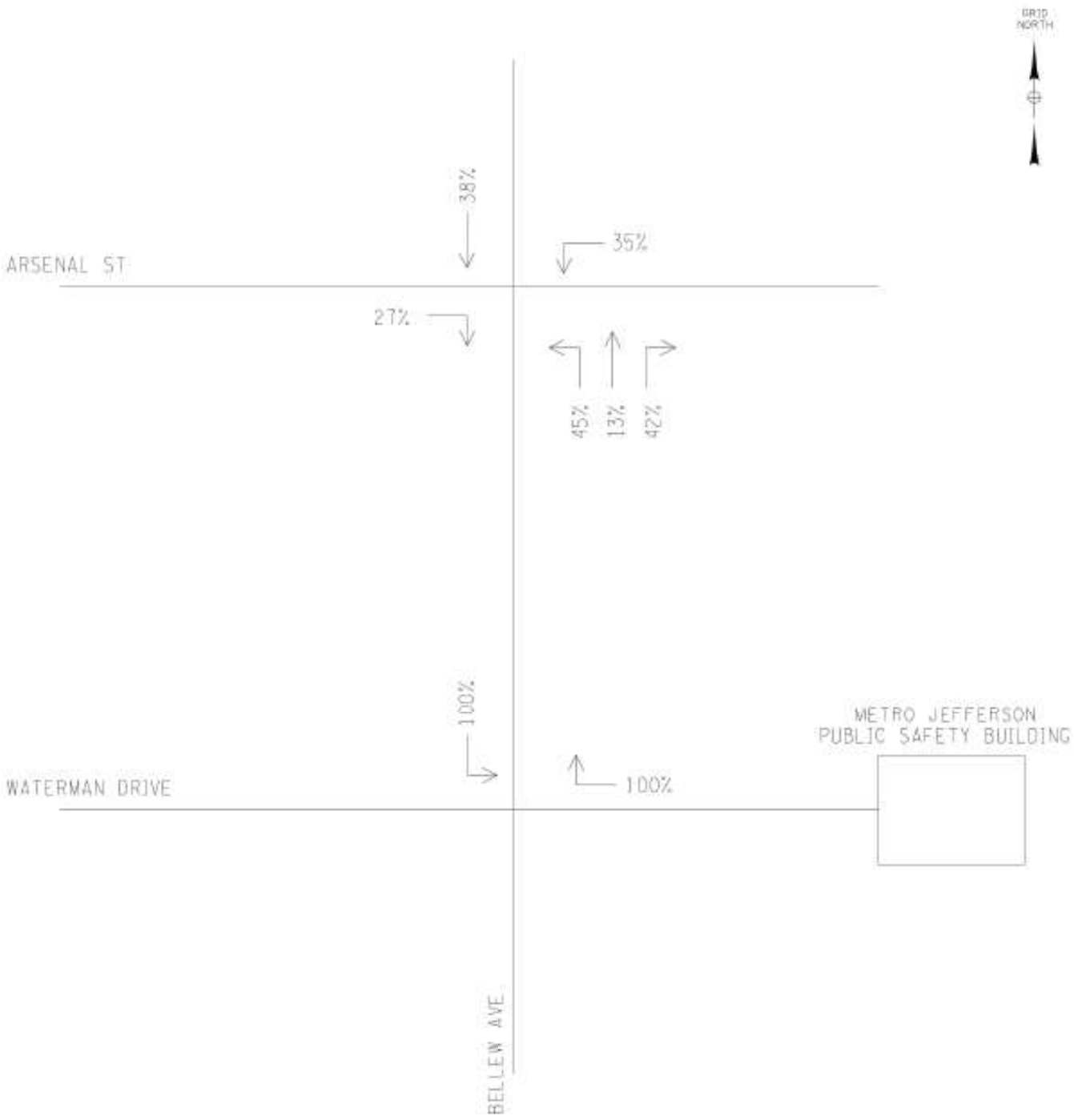
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - NO BUILD

INTERSECTION: ARSENAL STREET & S. BELLEW AVE

DATE: 9/21/2021



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WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

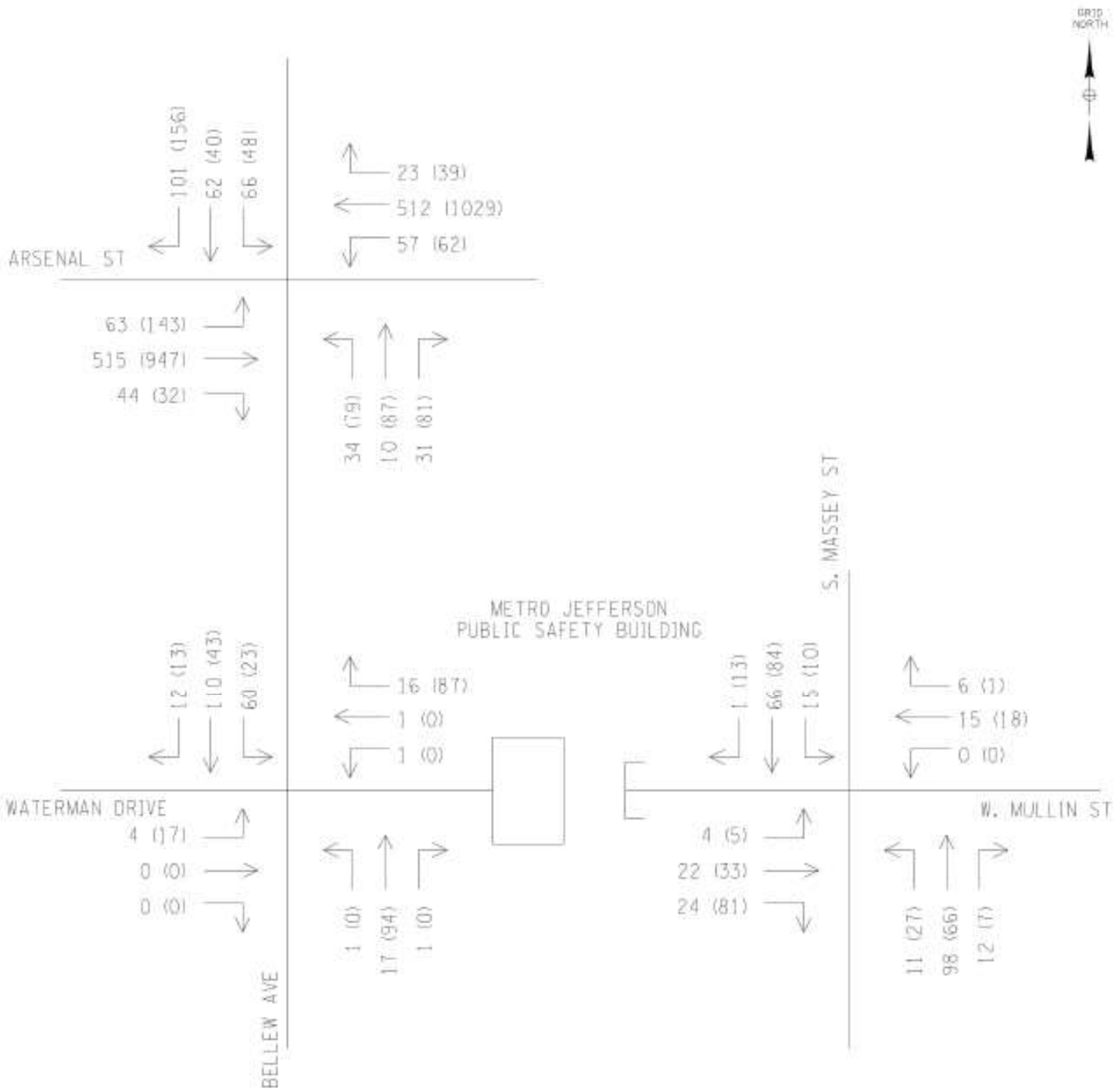
JEFFERSON COUNTY

PROJECT NO. 225.050.002

TRIP DISTRIBUTION

EXISTING CONDITIONS

DATE: 9/21/2021



AM PEAK HOUR TOTALS:

VEHICLES IN = 60

VEHICLES OUT = 18

PM PEAK HOUR TOTALS:

VEHICLES IN = 23

VEHICLES OUT = 87

LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

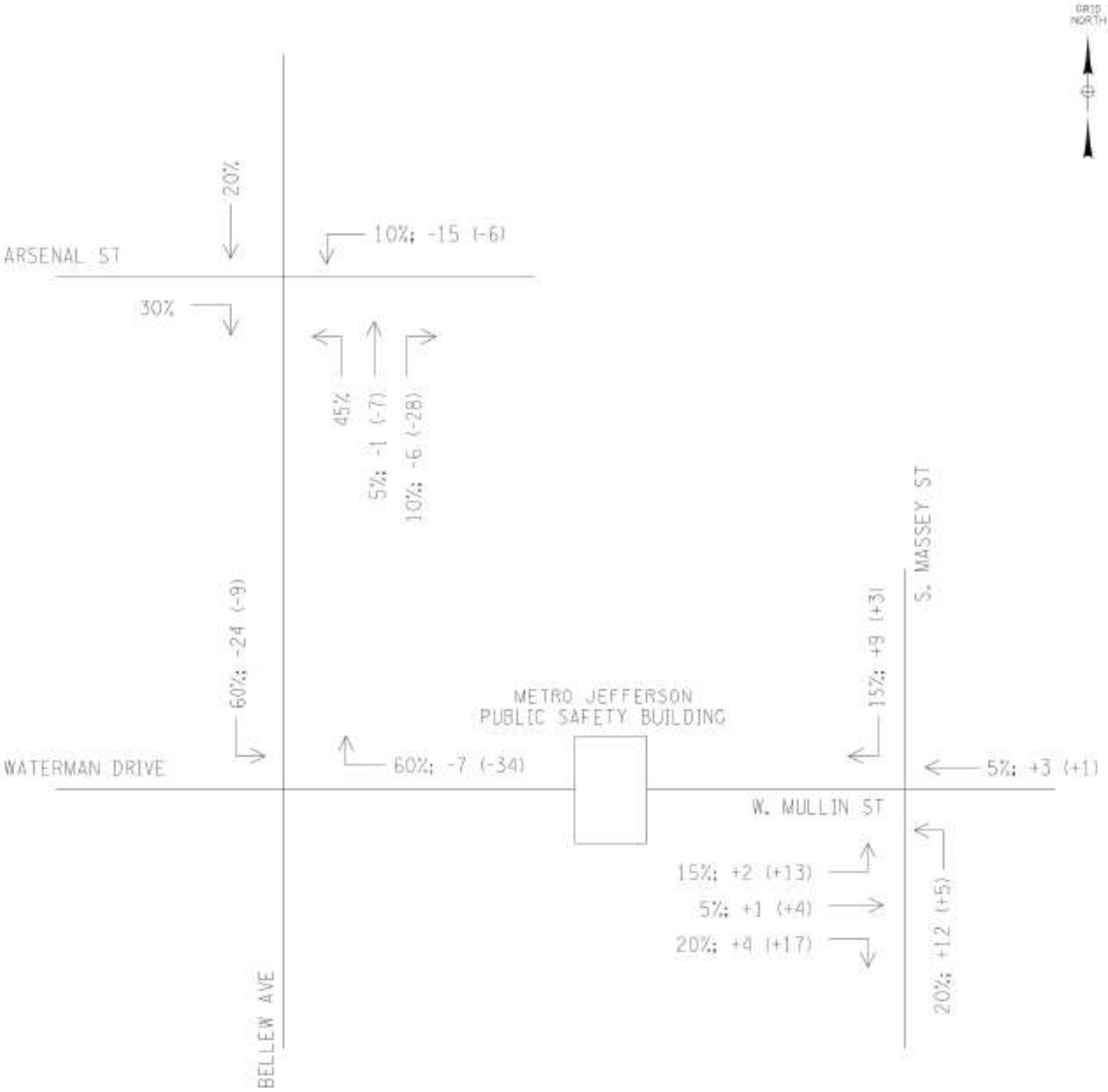
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - NO BUILD

ALTERNATIVE #5: ACCESS ROAD OVER CSX RAILWAY VIA W. MULLIN STREET

DATE: 9/21/2021



AM PEAK HOUR TOTALS:
VEHICLES IN = 60
VEHICLES OUT = 18

PM PEAK HOUR TOTALS:
VEHICLES IN = 23
VEHICLES OUT = 87

LEGEND:
%: XX (YY) = PROPOSED DISTRIBUTION: AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

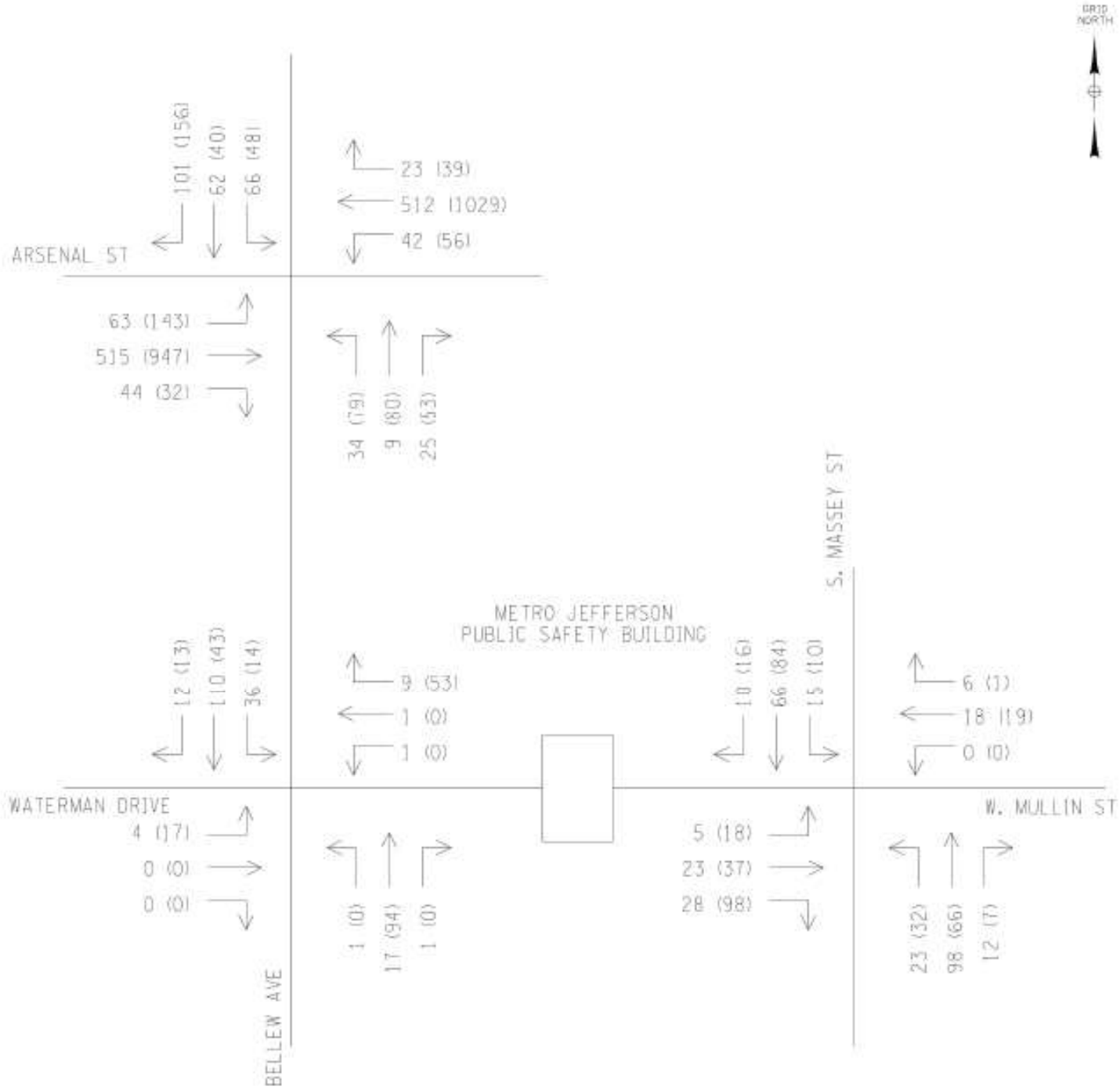
JEFFERSON COUNTY

PROJECT NO. 225.050.002

TRIP DISTRIBUTION

ALTERNATIVE #5: ACCESS ROAD OVER CSX RAILWAY VIA W. MULLIN STREET

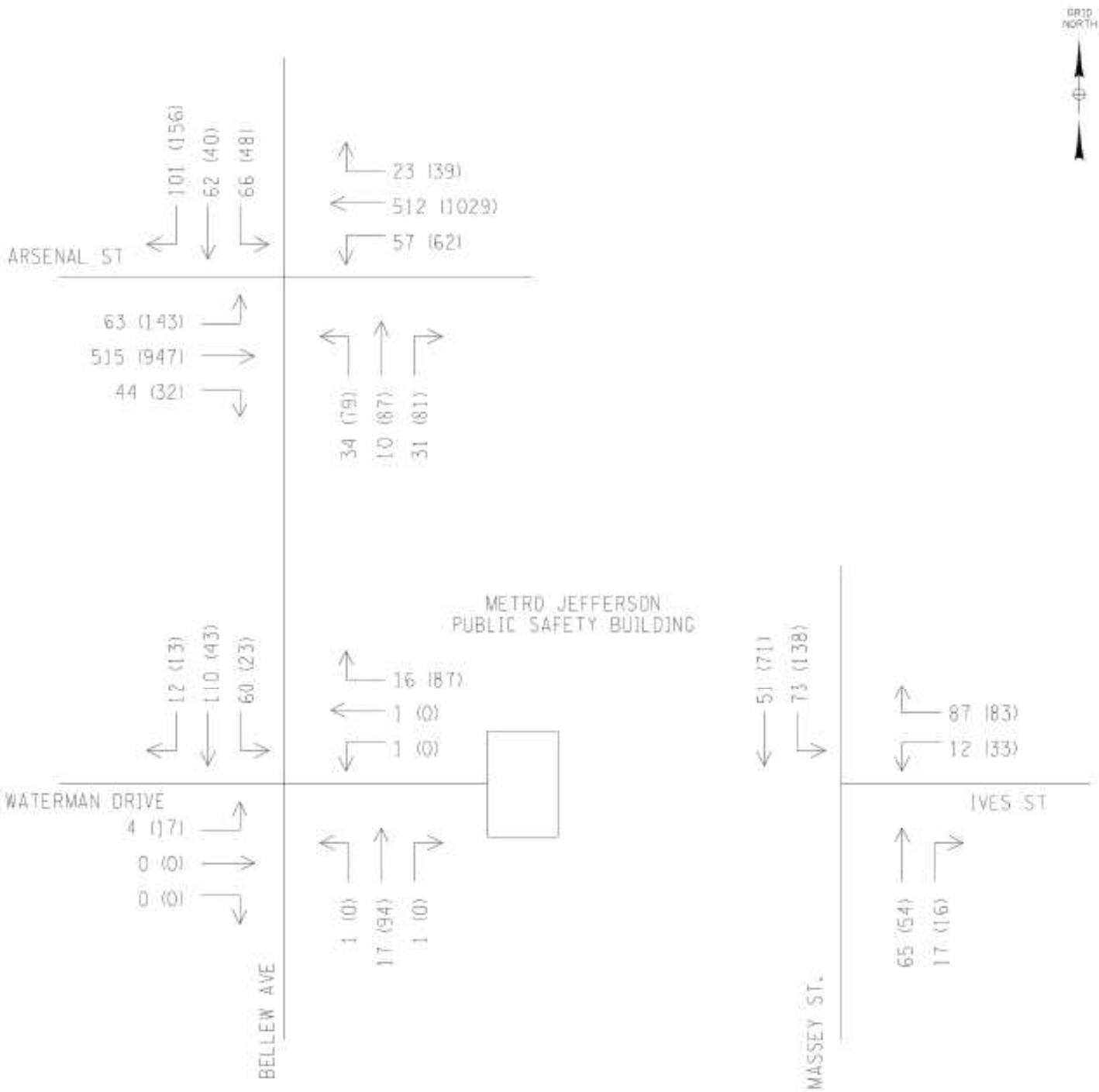
DATE: 9/21/2021



LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice	WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY	TRAFFIC VOLUME DIAGRAM
	CITY OF WATERTOWN	ETC+20 - BUILD
	JEFFERSON COUNTY	ALTERNATIVE #5: ACCESS ROAD OVER CSX RAILWAY VIA W. MULLIN STREET
	PROJECT NO. 225.050.002	DATE: 9/21/2021



AM PEAK HOUR TOTALS:

VEHICLES IN = 60

VEHICLES OUT = 18

PM PEAK HOUR TOTALS:

VEHICLES IN = 23

VEHICLES OUT = 87

LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

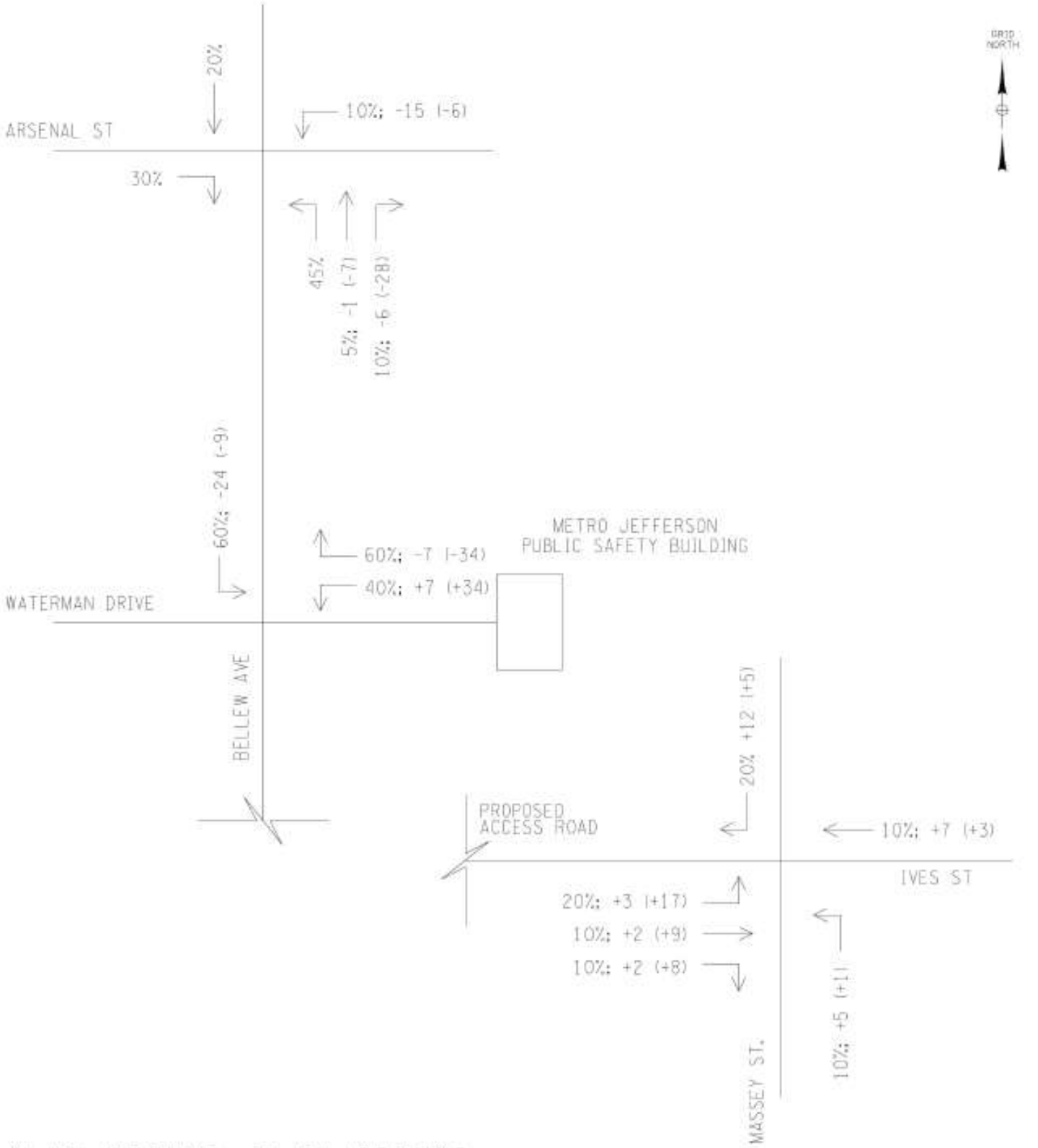
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - NO BUILD

ALTERNATIVE "6A: ACCESS ROAD OVER CSX VIA IVES STREET

DATE: 9/21/2021



AM PEAK HOUR TOTALS:
VEHICLES IN = 60
VEHICLES OUT = 18

PM PEAK HOUR TOTALS:
VEHICLES IN = 23
VEHICLES OUT = 87

LEGEND:
%: XX (YY) = PROPOSED DISTRIBUTION; AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

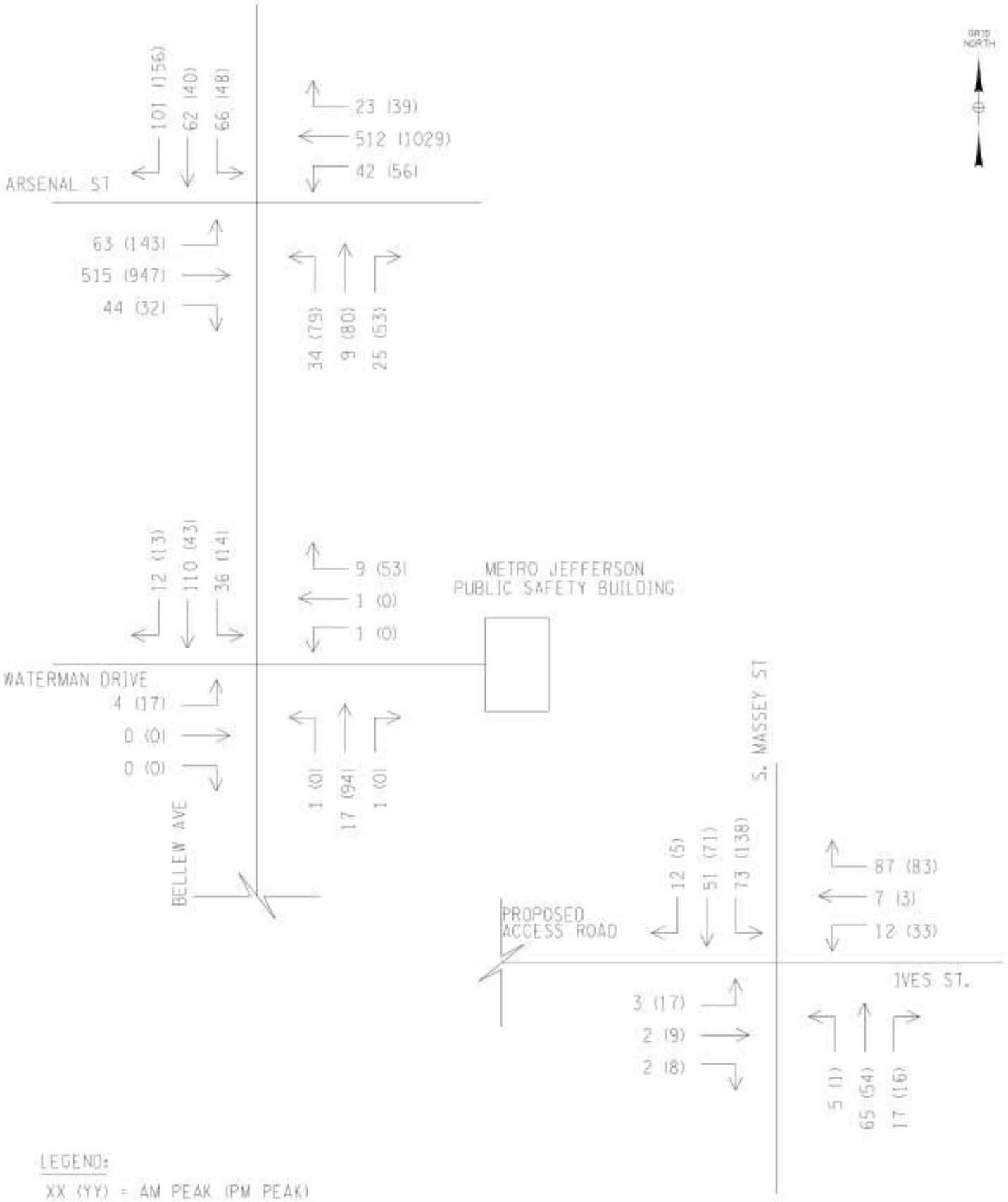
JEFFERSON COUNTY

PROJECT NO. 225.050.002

TRIP DISTRIBUTION

ALTERNATIVE #6A: ACCESS ROAD OVER CSX VIA IVES STREET

DATE: 9/21/2021



LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

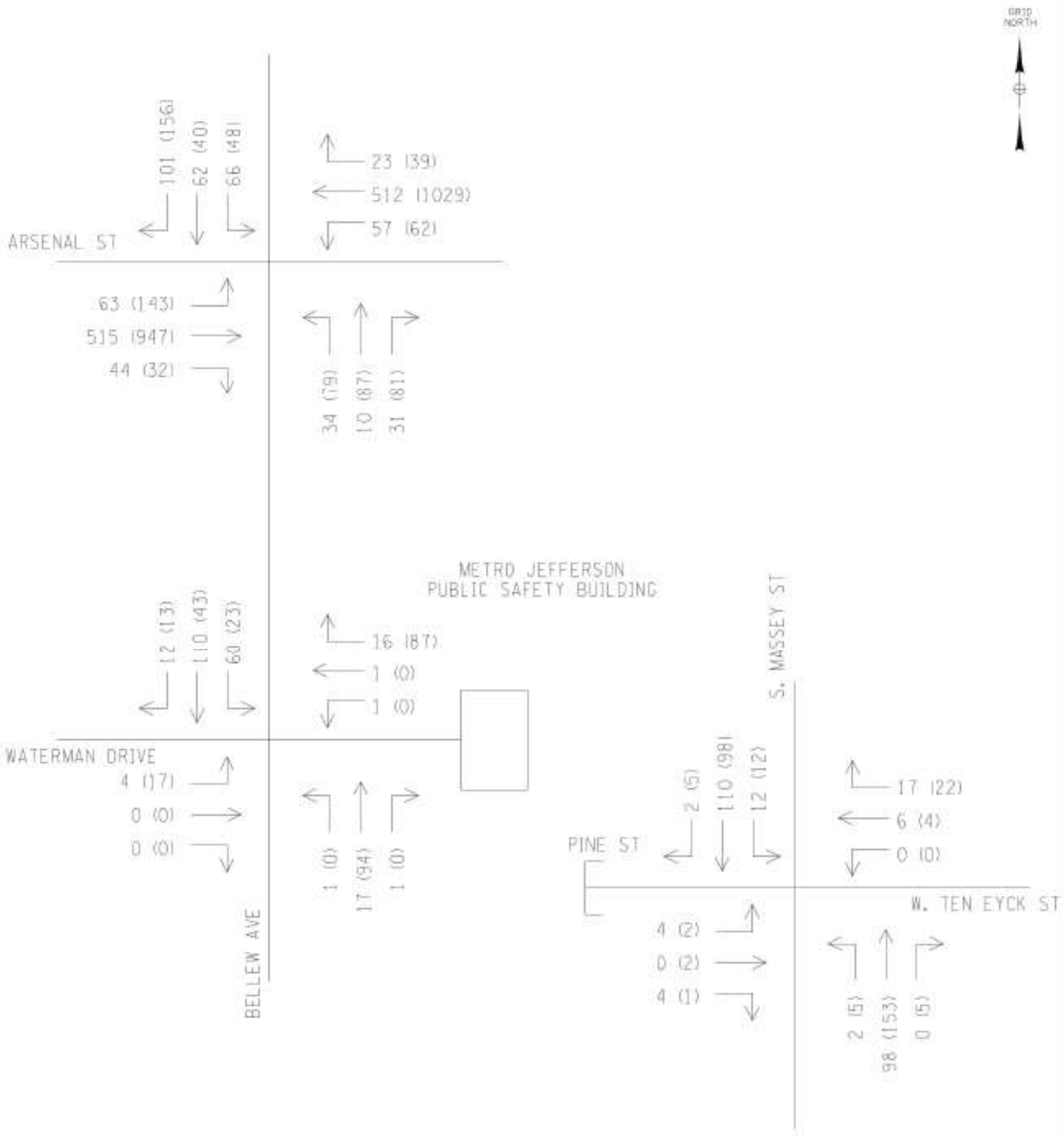
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - BUILD

ALTERNATIVE #6A: ACCESS ROAD OVER CSX VIA IVES STREET

DATE: 9/21/2021



AM PEAK HOUR TOTALS:

VEHICLES IN = 60

VEHICLES OUT = 18

PM PEAK HOUR TOTALS:

VEHICLES IN = 23

VEHICLES OUT = 87

LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

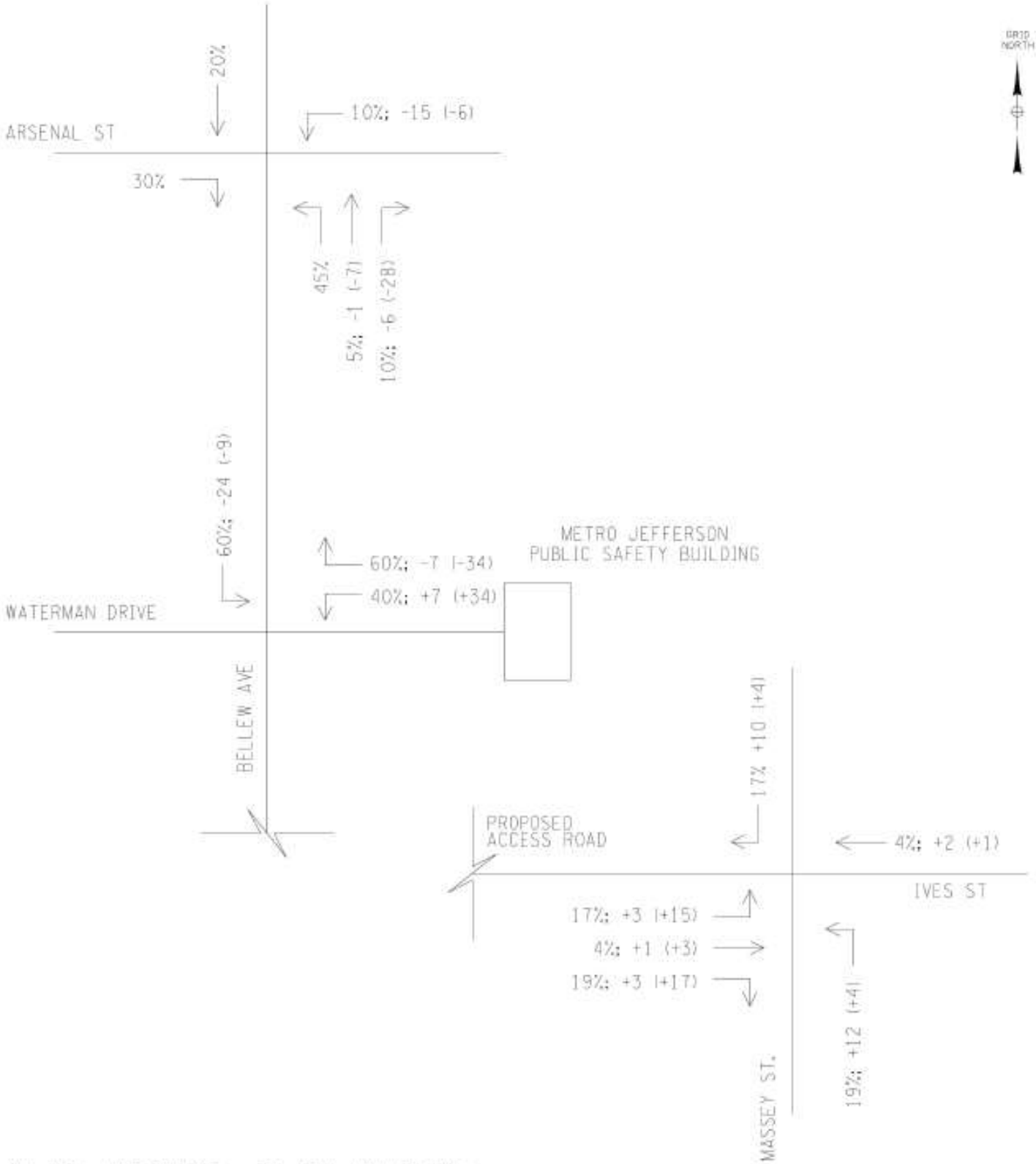
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - NO BUILD

ALTERNATIVE #6B: ACCESS ROAD OVER CSX VIA PINE STREET

DATE: 9/21/2021



AM PEAK HOUR TOTALS:
VEHICLES IN = 60
VEHICLES OUT = 18

PM PEAK HOUR TOTALS:
VEHICLES IN = 23
VEHICLES OUT = 87

LEGEND:
%: XX (YY) = PROPOSED DISTRIBUTION; AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

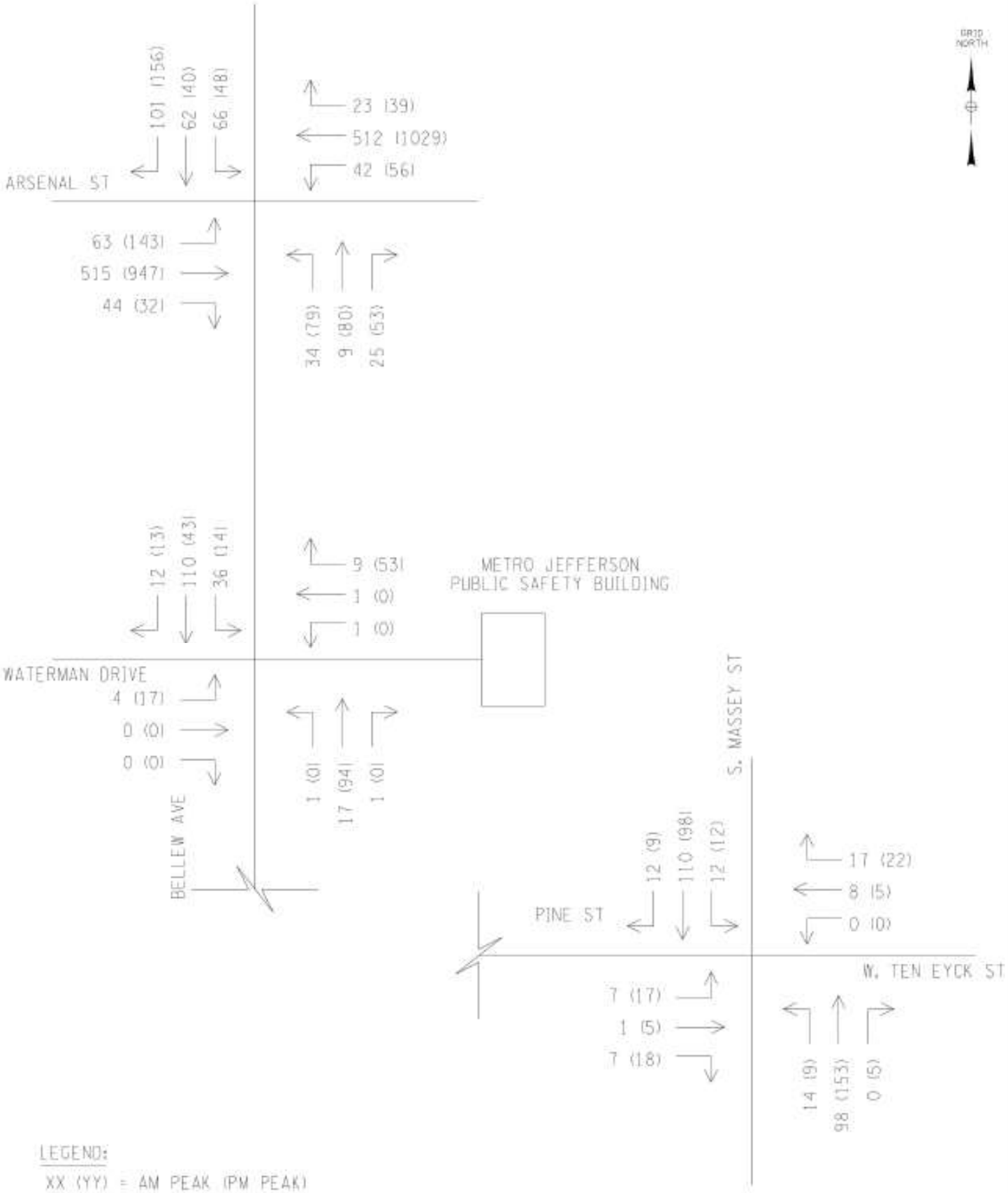
JEFFERSON COUNTY

PROJECT NO. 225.050.002

TRIP DISTRIBUTION

ALTERNATIVE *6B: ACCESS ROAD OVER CSX VIA PINE STREET

DATE: 9/21/2021



Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

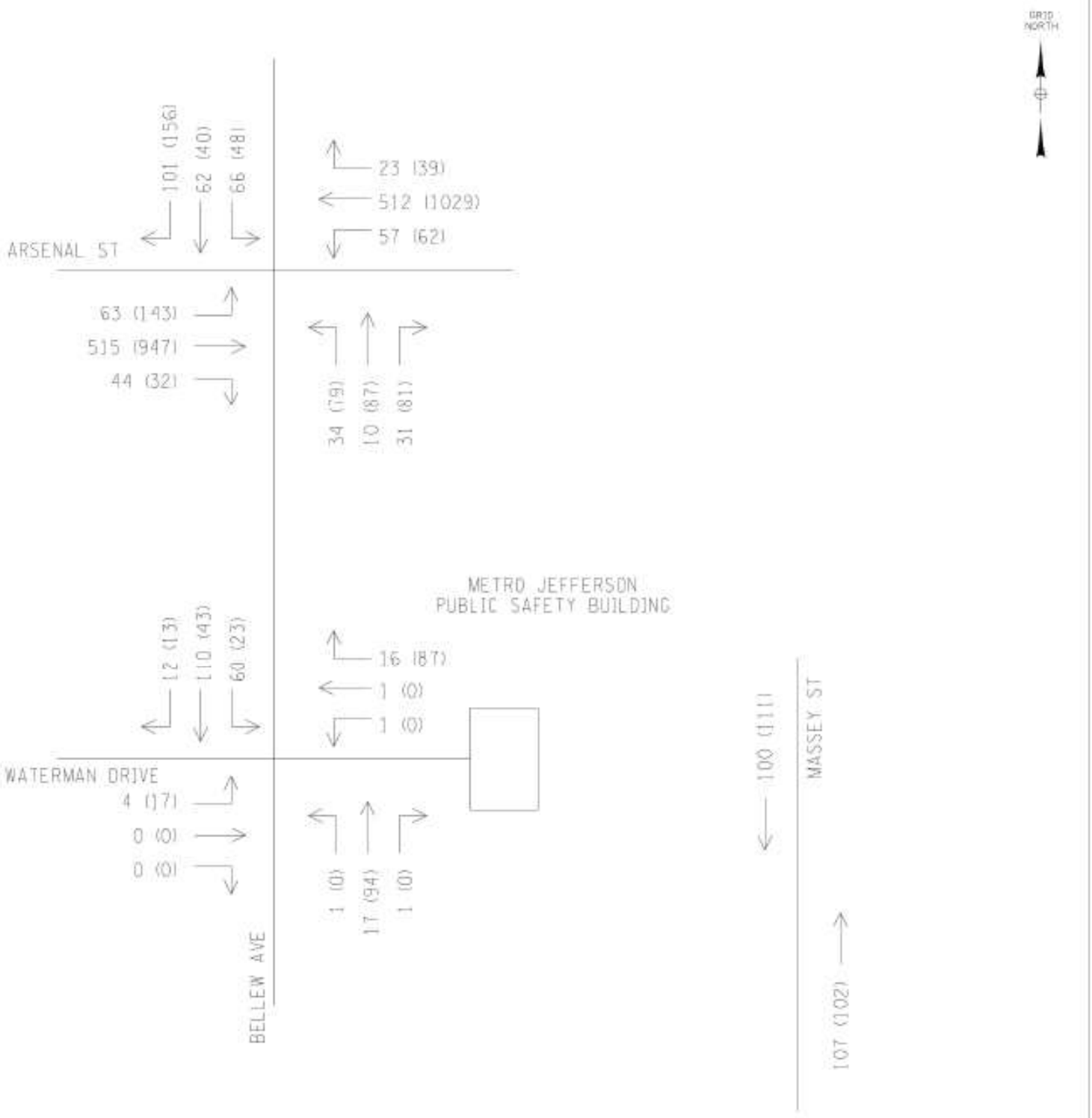
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - BUILD

ALTERNATIVE #6B: ACCESS ROAD OVER CSX VIA PINE STREET

DATE: 9/21/2021



AM PEAK HOUR TOTALS:

VEHICLES IN = 60

VEHICLES OUT = 18

PM PEAK HOUR TOTALS:

VEHICLES IN = 23

VEHICLES OUT = 87

LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

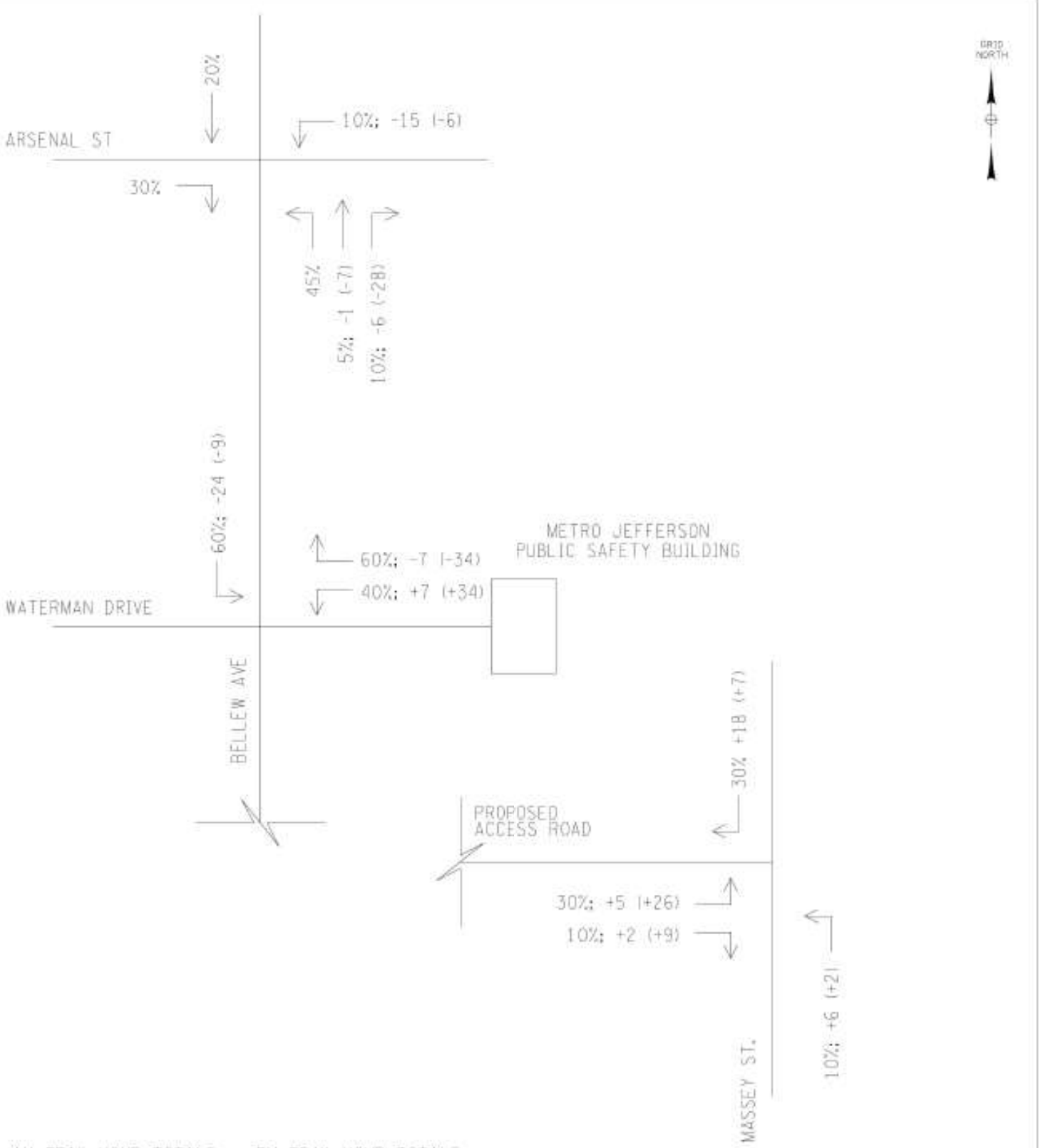
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - NO BUILD

ALTERNATIVE "7: ACCESS ROAD VIA MASSEY ST

DATE: 9/21/2021



AM PEAK HOUR TOTALS:
VEHICLES IN = 60
VEHICLES OUT = 18

PM PEAK HOUR TOTALS:
VEHICLES IN = 23
VEHICLES OUT = 87

LEGEND:
%: XX (YY) = PROPOSED DISTRIBUTION; AM PEAK (PM PEAK)

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

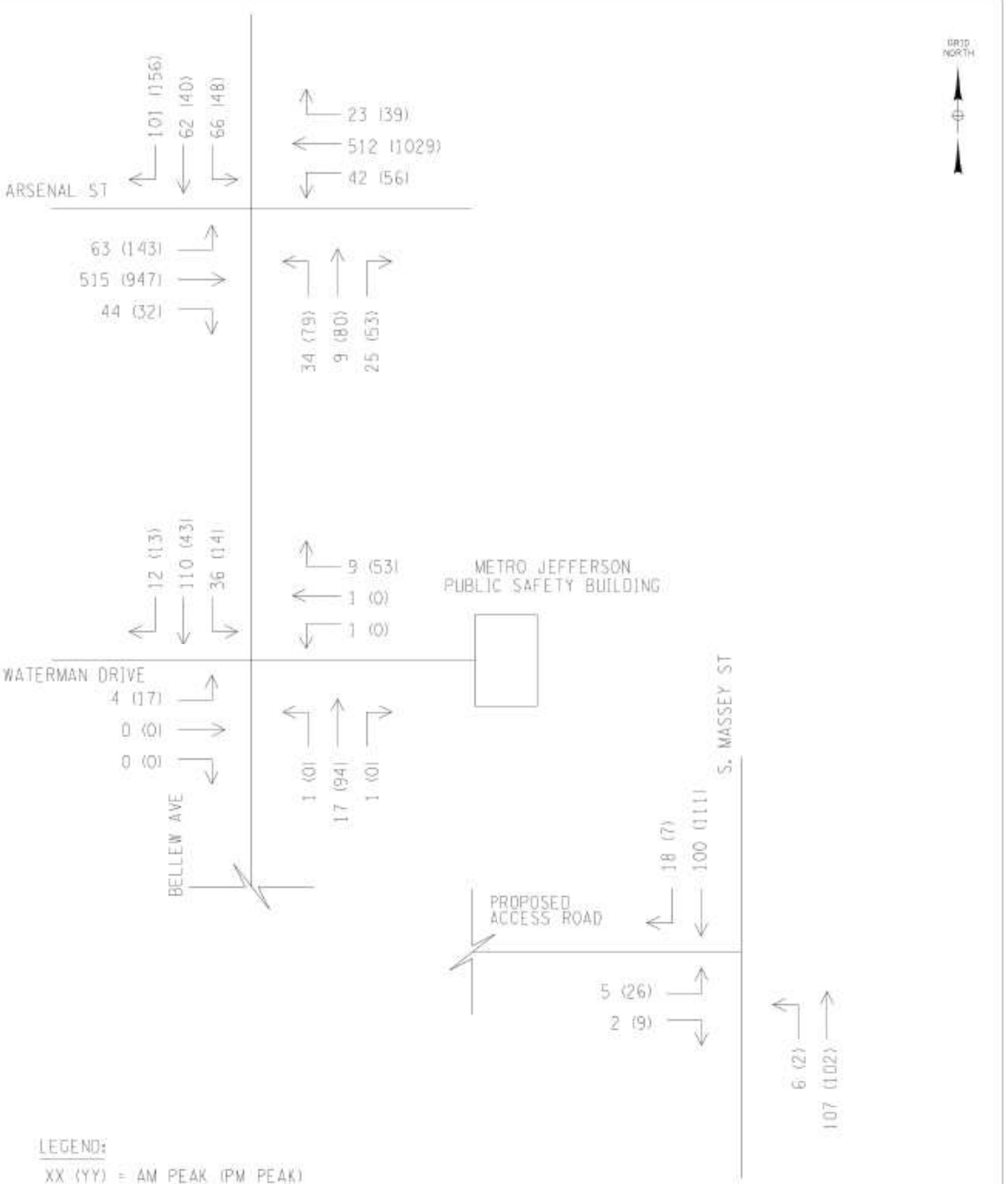
JEFFERSON COUNTY

PROJECT NO. 225.050.002

TRIP DISTRIBUTION

ALTERNATIVE "7: ACCESS ROAD VIA MASSEY ST

DATE: 9/21/2021



Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

JEFFERSON COUNTY

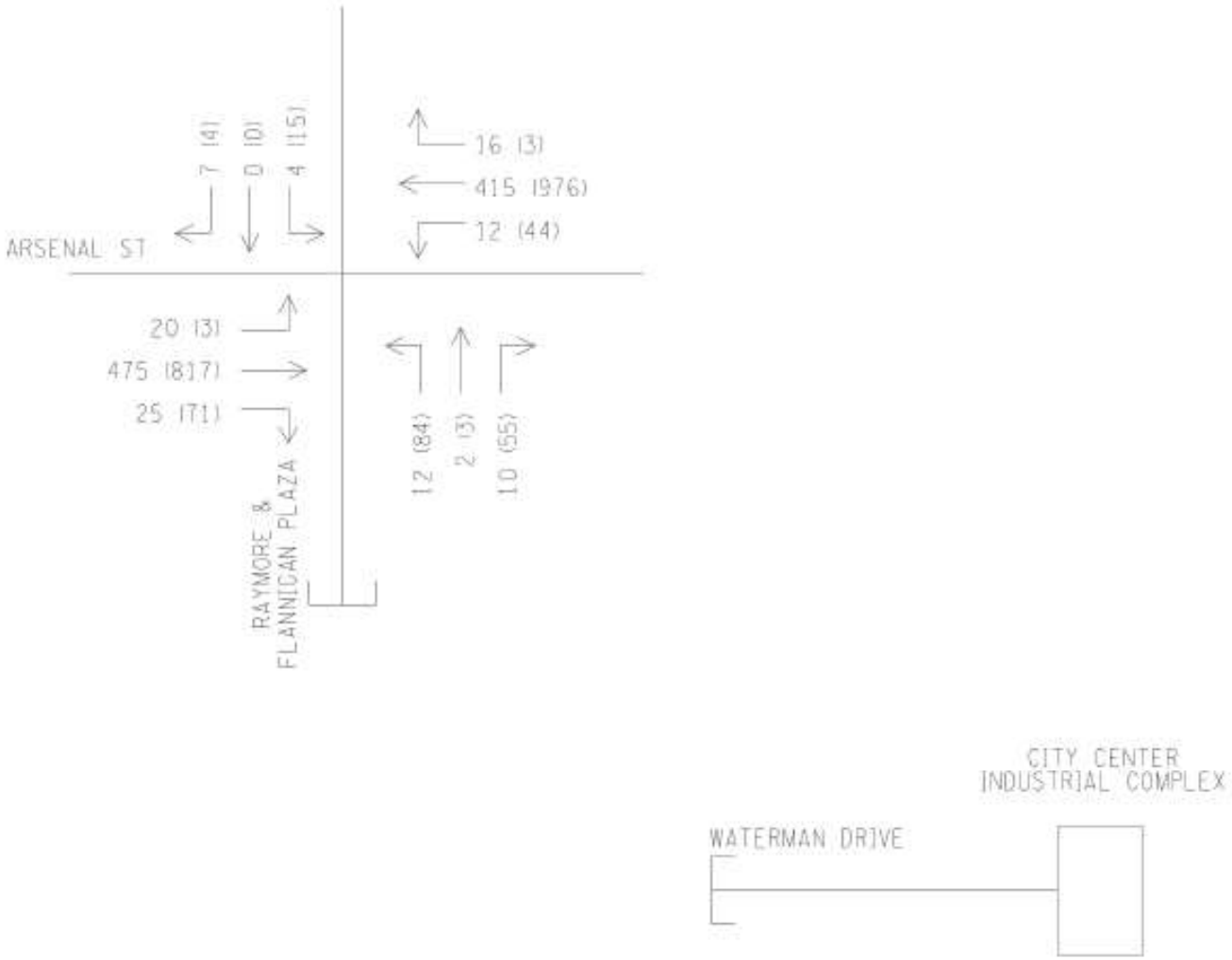
PROJECT NO. 225.050.002

TRAFFIC VOLUME DIAGRAM

ETC+20 - BUILD

ALTERNATIVE "7a ACCESS ROAD VIA MASSEY ST

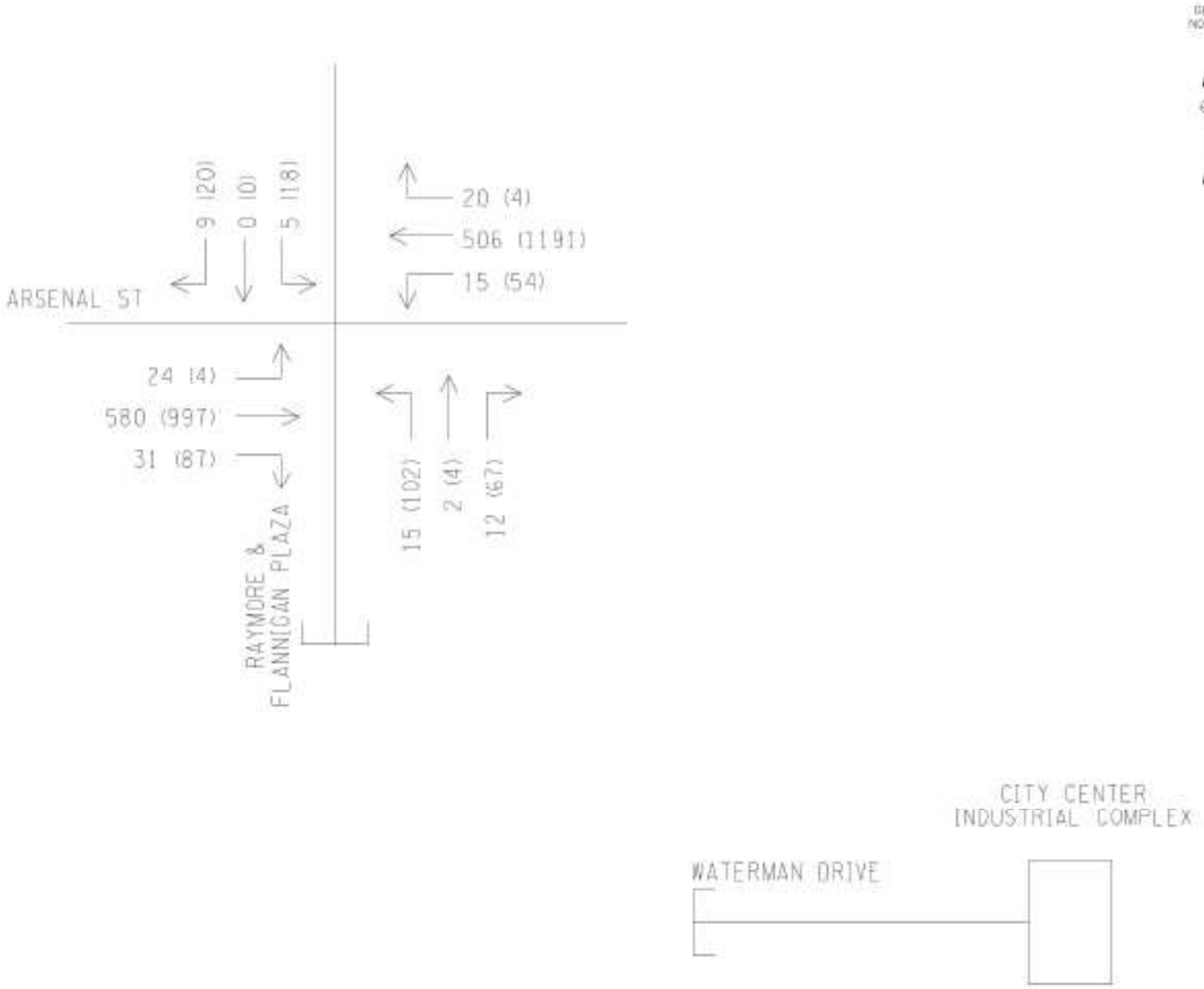
DATE: 9/21/2021



LEGEND:

XX (YY) = AM PEAK (PM PEAK)

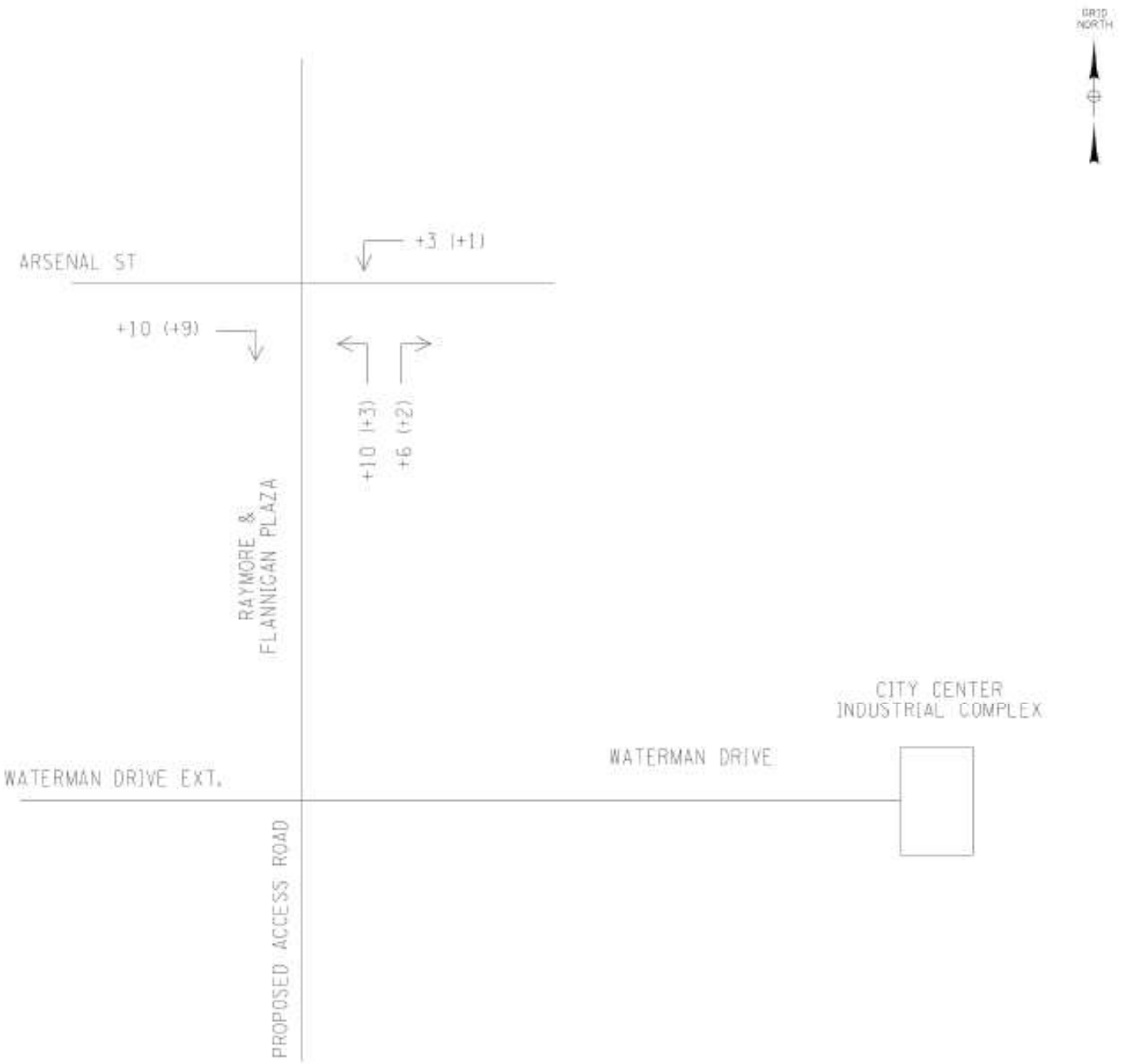
Barton & Loguidice	WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY	TRAFFIC VOLUME DIAGRAM
	CITY OF WATERTOWN	EXISTING CONDITIONS
	JEFFERSON COUNTY	ALTERNATIVE #10: ARSENAL STREET & RAYMORE & FLANNIGAN/CEDAR SQUARE
	PROJECT NO. 225.050.002	DATE: 3/11/2022



LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice	WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY	TRAFFIC VOLUME DIAGRAM
	CITY OF WATERTOWN	ETC+20 - NO BUILD
	JEFFERSON COUNTY	ALTERNATIVE #10: ARSENAL STREET & RAYMORE & FLANNIGAN/CEDAR SQUARE
	PROJECT NO. 225.050.002	DATE: 3/11/2022



LEGEND:

XX (YY) = AM PEAK (PM PEAK)

AM PEAK HOUR TOTALS:	PM PEAK HOUR TOTALS:
VEHICLES IN = 13	VEHICLES IN = 10
VEHICLES OUT = 16	VEHICLES OUT = 5

Barton & Loguidice

WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY

CITY OF WATERTOWN

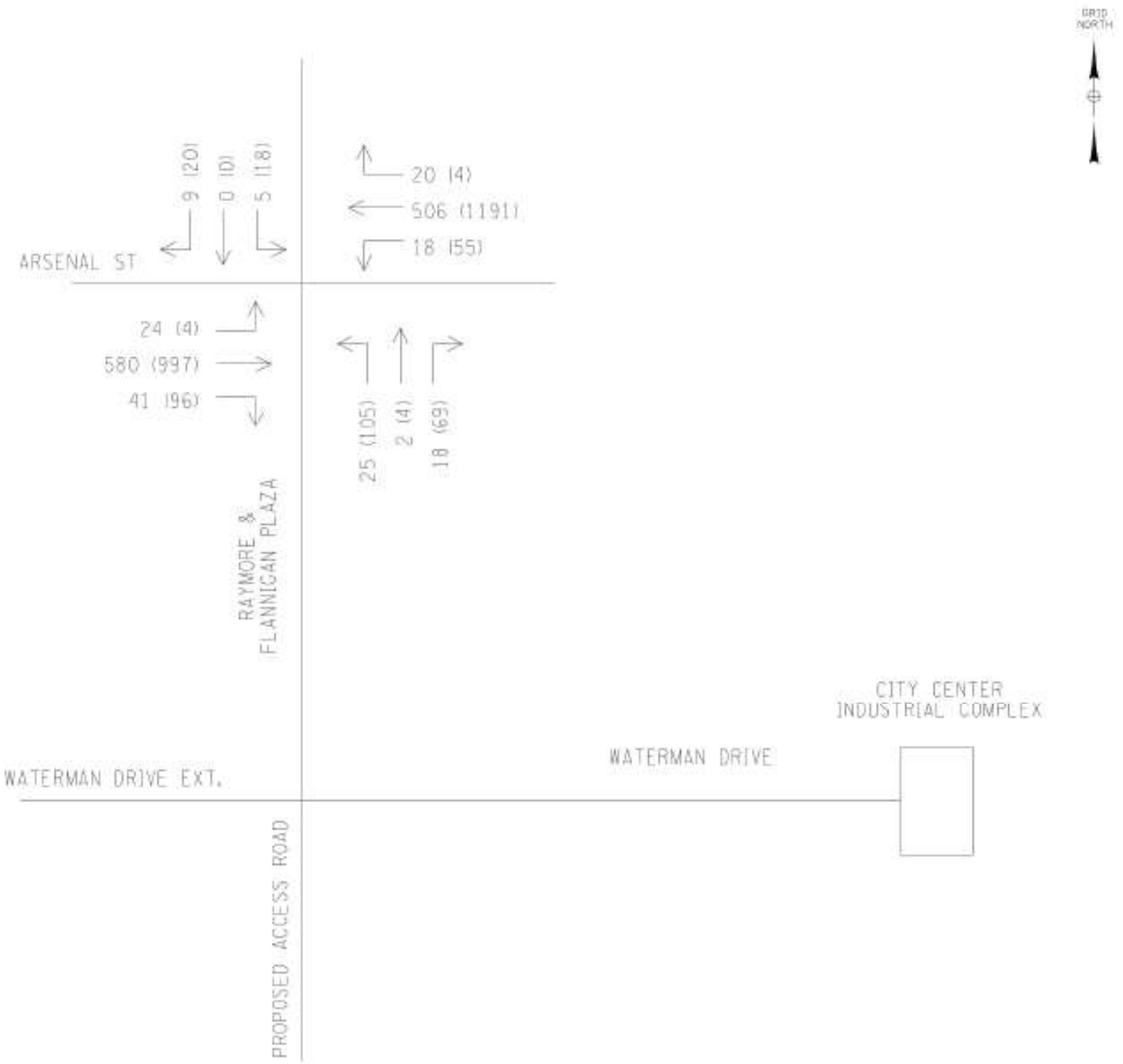
JEFFERSON COUNTY

PROJECT NO. 225.050.002

TRIP DISTRIBUTION

ALTERNATIVE #10 ARSENAL STREET & RAYMORE & FLANNIGAN/CEDAR SQUARE

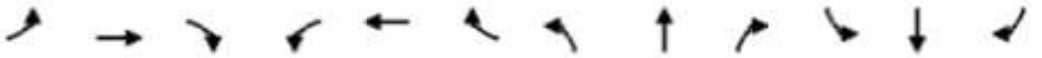
DATE: 3/11/2022



LEGEND:

XX (YY) = AM PEAK (PM PEAK)

Barton & Loguidice	WATERTOWN PUBLIC SAFETY BUILDING ACCESS STUDY	TRAFFIC VOLUME DIAGRAM
	CITY OF WATERTOWN	ETC+20 - BUILD
	JEFFERSON COUNTY	ALTERNATIVE #10 ARSENAL STREET & RAYMORE & FLANNIGAN/CEDAR SQUARE
	PROJECT NO. 225.050.002	DATE: 3/11/2022

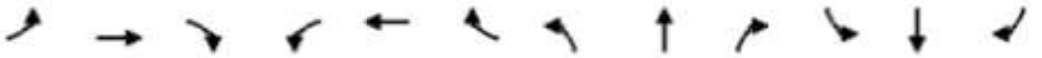


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	475	25	12	415	16	12	2	10	4	0	7
Future Volume (vph)	20	475	25	12	415	16	12	2	10	4	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.994			0.878			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3504	0	1787	3486	0	1787	1103	0	1787	1599	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1787	3504	0	1787	3486	0	1881	1103	0	1881	1599	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			5			13			445	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		496			469			457			583	
Travel Time (s)		11.3			10.7			10.4			13.3	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.75	0.75	0.75	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	8%	1%	3%	1%	1%	100%	40%	1%	1%	1%
Adj. Flow (vph)	23	552	29	13	466	18	16	3	13	4	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	581	0	13	484	0	16	16	0	4	8	0
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	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		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	
Detector 1 Queue (s)	0.0	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	0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			3			7	
Permitted Phases							3			7		
Detector Phase	1	6		5	2		3	3		7	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	32.0		9.5	32.0		34.0	34.0		34.0	34.0	
Total Split (s)	14.0	44.0		22.0	52.0		34.0	34.0		34.0	34.0	
Total Split (%)	14.0%	44.0%		22.0%	52.0%		34.0%	34.0%		34.0%	34.0%	
Maximum Green (s)	9.5	39.0		17.5	47.0		29.0	29.0		29.0	29.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		20.0			20.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	7.5	16.6		7.3	16.6		7.5	7.5		7.3	7.3	
Actuated g/C Ratio	0.39	0.87		0.38	0.87		0.39	0.39		0.38	0.38	
v/c Ratio	0.03	0.19		0.02	0.16		0.02	0.04		0.01	0.01	
Control Delay	9.8	3.7		10.3	3.8		9.9	7.8		10.5	0.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.8	3.7		10.3	3.8		9.9	7.8		10.5	0.0	
LOS	A	A		B	A		A	A		B	A	
Approach Delay		3.9			3.9			8.8			3.5	
Approach LOS		A			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 19.1			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.19			
Intersection Signal Delay: 4.1		Intersection LOS: A	
Intersection Capacity Utilization 32.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Raymore & Flannigan Plaza/Cedar Square Plaza & Arsenal Street

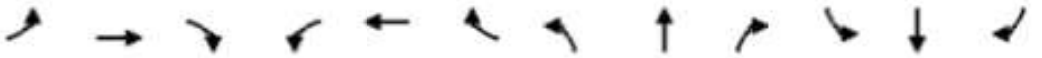


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	817	71	44	976	3	84	3	55	15	0	16
Future Volume (vph)	3	817	71	44	976	3	84	3	55	15	0	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988						0.859			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3526	0	1770	3574	0	1787	1616	0	1787	1599	0
Flt Permitted	0.950			0.950			0.745			0.712		
Satd. Flow (perm)	1787	3526	0	1770	3574	0	1401	1616	0	1339	1599	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11						65			240	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		496			469			457			583	
Travel Time (s)		11.3			10.7			10.4			13.3	
Peak Hour Factor	0.89	0.89	0.89	0.90	0.90	0.90	0.85	0.85	0.85	0.86	0.86	0.86
Heavy Vehicles (%)	1%	1%	3%	2%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	3	918	80	49	1084	3	99	4	65	17	0	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	998	0	49	1087	0	99	69	0	17	19	0
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	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		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	
Detector 1 Queue (s)	0.0	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	0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			3			7	
Permitted Phases							3			7		
Detector Phase	1	6		5	2		3	3		7	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	32.0		9.5	32.0		34.0	34.0		34.0	34.0	
Total Split (s)	14.0	44.0		22.0	52.0		34.0	34.0		34.0	34.0	
Total Split (%)	14.0%	44.0%		22.0%	52.0%		34.0%	34.0%		34.0%	34.0%	
Maximum Green (s)	9.5	39.0		17.5	47.0		29.0	29.0		29.0	29.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		20.0			20.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	7.7	25.9		9.0	30.4		11.4	11.4		9.9	9.9	
Actuated g/C Ratio	0.16	0.55		0.19	0.65		0.24	0.24		0.21	0.21	
v/c Ratio	0.01	0.51		0.14	0.47		0.29	0.16		0.06	0.04	
Control Delay	28.0	12.4		25.5	8.0		23.9	8.7		22.5	0.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	28.0	12.4		25.5	8.0		23.9	8.7		22.5	0.1	
LOS	C	B		C	A		C	A		C	A	
Approach Delay		12.4			8.7			17.6			10.7	
Approach LOS		B			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 46.9			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Raymore & Flannigan Plaza/Cedar Square Plaza & Arsenal Street

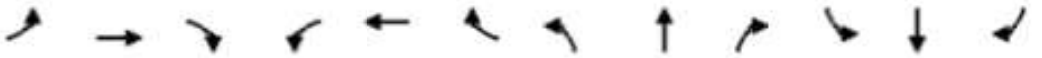


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	580	31	15	506	20	15	2	12	5	0	9
Future Volume (vph)	24	580	31	15	506	20	15	2	12	5	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.994			0.874			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3500	0	1787	3486	0	1787	1111	0	1787	1599	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1787	3500	0	1787	3486	0	1881	1111	0	1881	1599	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			5			16			383	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		496			469			457			583	
Travel Time (s)		11.3			10.7			10.4			13.3	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.75	0.75	0.75	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	8%	1%	3%	1%	1%	100%	40%	1%	1%	1%
Adj. Flow (vph)	28	674	36	17	569	22	20	3	16	5	0	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	710	0	17	591	0	20	19	0	5	10	0
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	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		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	
Detector 1 Queue (s)	0.0	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	0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			3			7	
Permitted Phases							3			7		
Detector Phase	1	6		5	2		3	3		7	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	32.0		9.5	32.0		34.0	34.0		34.0	34.0	
Total Split (s)	14.0	44.0		22.0	52.0		34.0	34.0		34.0	34.0	
Total Split (%)	14.0%	44.0%		22.0%	52.0%		34.0%	34.0%		34.0%	34.0%	
Maximum Green (s)	9.5	39.0		17.5	47.0		29.0	29.0		29.0	29.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		20.0			20.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	7.9	18.9		7.6	18.9		7.8	7.8		7.6	7.6	
Actuated g/C Ratio	0.32	0.77		0.31	0.77		0.32	0.32		0.31	0.31	
v/c Ratio	0.05	0.26		0.03	0.22		0.03	0.05		0.01	0.01	
Control Delay	13.1	5.1		13.8	5.0		13.3	9.6		14.0	0.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.1	5.1		13.8	5.0		13.3	9.6		14.0	0.0	
LOS	B	A		B	A		B	A		B	A	
Approach Delay		5.4			5.3			11.5			4.7	
Approach LOS		A			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 24.4			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.26			
Intersection Signal Delay: 5.5		Intersection LOS: A	
Intersection Capacity Utilization 35.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Raymore & Flannigan Plaza/Cedar Square Plaza & Arsenal Street

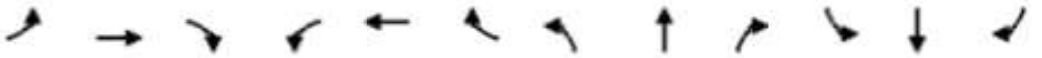


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	997	87	54	1191	4	102	4	67	18	0	20
Future Volume (vph)	4	997	87	54	1191	4	102	4	67	18	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988						0.859			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3526	0	1770	3574	0	1787	1616	0	1787	1599	0
Flt Permitted	0.950			0.950			0.742			0.702		
Satd. Flow (perm)	1787	3526	0	1770	3574	0	1396	1616	0	1321	1599	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11						79			219	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		496			469			457			583	
Travel Time (s)		11.3			10.7			10.4			13.3	
Peak Hour Factor	0.89	0.89	0.89	0.90	0.90	0.90	0.85	0.85	0.85	0.86	0.86	0.86
Heavy Vehicles (%)	1%	1%	3%	2%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	4	1120	98	60	1323	4	120	5	79	21	0	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	1218	0	60	1327	0	120	84	0	21	23	0
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	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		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	
Detector 1 Queue (s)	0.0	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	0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			3			7	
Permitted Phases							3			7		
Detector Phase	1	6		5	2		3	3		7	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	32.0		9.5	32.0		34.0	34.0		34.0	34.0	
Total Split (s)	14.0	44.0		22.0	52.0		34.0	34.0		34.0	34.0	
Total Split (%)	14.0%	44.0%		22.0%	52.0%		34.0%	34.0%		34.0%	34.0%	
Maximum Green (s)	9.5	39.0		17.5	47.0		29.0	29.0		29.0	29.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		20.0			20.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	7.1	34.9		9.0	39.9		12.6	12.6		11.0	11.0	
Actuated g/C Ratio	0.12	0.60		0.16	0.69		0.22	0.22		0.19	0.19	
v/c Ratio	0.02	0.57		0.22	0.54		0.40	0.20		0.08	0.05	
Control Delay	34.0	13.2		31.6	8.6		30.4	9.5		26.6	0.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	34.0	13.2		31.6	8.6		30.4	9.5		26.6	0.2	
LOS	C	B		C	A		C	A		C	A	
Approach Delay		13.3			9.6			21.8			12.8	
Approach LOS		B			A			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 57.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 12.1		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Raymore & Flannigan Plaza/Cedar Square Plaza & Arsenal Street

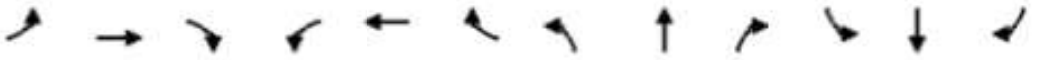


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	580	41	18	506	20	25	2	18	5	0	9
Future Volume (vph)	24	580	41	18	506	20	25	2	18	5	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.994			0.867			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3443	0	1543	3486	0	1289	1024	0	1787	1599	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1787	3443	0	1543	3486	0	1357	1024	0	1881	1599	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			5			24			383	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		496			469			457			583	
Travel Time (s)		11.3			10.7			10.4			13.3	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.75	0.75	0.75	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	29%	17%	3%	1%	40%	100%	56%	1%	1%	1%
Adj. Flow (vph)	28	674	48	20	569	22	33	3	24	5	0	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	722	0	20	591	0	33	27	0	5	10	0
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	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		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	
Detector 1 Queue (s)	0.0	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	0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			3			7	
Permitted Phases							3			7		
Detector Phase	1	6		5	2		3	3		7	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	32.0		9.5	32.0		34.0	34.0		34.0	34.0	
Total Split (s)	14.0	44.0		22.0	52.0		34.0	34.0		34.0	34.0	
Total Split (%)	14.0%	44.0%		22.0%	52.0%		34.0%	34.0%		34.0%	34.0%	
Maximum Green (s)	9.5	39.0		17.5	47.0		29.0	29.0		29.0	29.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		20.0			20.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	8.2	20.2		8.1	20.1		8.9	8.9		8.1	8.1	
Actuated g/C Ratio	0.32	0.78		0.31	0.77		0.34	0.34		0.31	0.31	
v/c Ratio	0.05	0.27		0.04	0.22		0.07	0.07		0.01	0.01	
Control Delay	14.6	5.6		15.1	5.4		13.4	8.9		14.6	0.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.6	5.6		15.1	5.4		13.4	8.9		14.6	0.0	
LOS	B	A		B	A		B	A		B	A	
Approach Delay		5.9			5.7			11.4			4.9	
Approach LOS		A			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 26			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.27			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 36.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Raymore & Flannigan Plaza/Cedar Square Plaza & Arsenal Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	997	96	55	1191	4	105	4	69	18	0	20
Future Volume (vph)	4	997	96	55	1191	4	105	4	69	18	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987						0.859			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3503	0	1770	3574	0	1752	1586	0	1787	1599	0
Flt Permitted	0.950			0.950			0.742			0.701		
Satd. Flow (perm)	1787	3503	0	1770	3574	0	1369	1586	0	1319	1599	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12						81			219	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		496			469			457			583	
Travel Time (s)		11.3			10.7			10.4			13.3	
Peak Hour Factor	0.89	0.89	0.89	0.90	0.90	0.90	0.85	0.85	0.85	0.86	0.86	0.86
Heavy Vehicles (%)	1%	1%	9%	2%	1%	1%	3%	1%	3%	1%	1%	1%
Adj. Flow (vph)	4	1120	108	61	1323	4	124	5	81	21	0	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	1228	0	61	1327	0	124	86	0	21	23	0
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	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		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	
Detector 1 Queue (s)	0.0	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	0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			3			7	
Permitted Phases							3			7		
Detector Phase	1	6		5	2		3	3		7	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	32.0		9.5	32.0		34.0	34.0		34.0	34.0	
Total Split (s)	14.0	44.0		22.0	52.0		34.0	34.0		34.0	34.0	
Total Split (%)	14.0%	44.0%		22.0%	52.0%		34.0%	34.0%		34.0%	34.0%	
Maximum Green (s)	9.5	39.0		17.5	47.0		29.0	29.0		29.0	29.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		20.0			20.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	7.2	35.7		9.1	40.7		13.0	13.0		11.3	11.3	
Actuated g/C Ratio	0.12	0.61		0.15	0.69		0.22	0.22		0.19	0.19	
v/c Ratio	0.02	0.58		0.22	0.54		0.41	0.21		0.08	0.05	
Control Delay	34.8	13.4		32.3	8.7		31.1	9.4		26.8	0.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	34.8	13.4		32.3	8.7		31.1	9.4		26.8	0.2	
LOS	C	B		C	A		C	A		C	A	
Approach Delay		13.5			9.8			22.2			12.9	
Approach LOS		B			A			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 58.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 61.8%		ICU Level of Service B	
Analysis Period (min) 15			

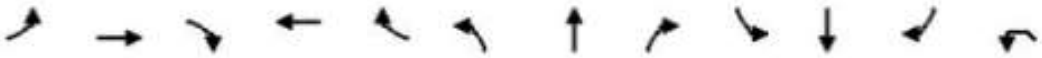
Splits and Phases: 3: Tractor Supply Plaza/Cedar Square Plaza & Arsenal Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	776	26	51	843	32	65	71	66	39	33	128
Future Volume (vph)	117	776	26	51	843	32	65	71	66	39	33	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	60		60	0		120	0		80
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	60			130			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00				0.99		1.00	
Frt		0.991			0.994				0.850			0.850
Flt Protected	0.950			0.950				0.977			0.975	
Satd. Flow (prot)	1787	3480	0	1770	3549	0	0	1820	1583	0	1792	1599
Flt Permitted	0.950			0.950				0.801			0.672	
Satd. Flow (perm)	1783	3480	0	1764	3549	0	0	1492	1562	0	1234	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6				118			152
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		764			941			373			408	
Travel Time (s)		17.4			21.4			8.5			9.3	
Confl. Peds. (#/hr)	5		7	7		5			2	2		
Peak Hour Factor	0.86	0.90	0.46	0.75	0.88	0.80	0.71	0.68	0.83	0.75	0.69	0.84
Heavy Vehicles (%)	1%	1%	27%	2%	1%	1%	2%	2%	2%	1%	6%	1%
Adj. Flow (vph)	136	862	57	68	958	40	92	104	80	52	48	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	919	0	68	998	0	0	196	80	0	100	152
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			0			0	
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	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	50	50		50	50		20	50	50	20	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	50	50		50	50		20	50	50	20	50	50
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	0.0		0.0	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	0.0	0.0	0.0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3		3	3		3
Detector Phase	5	2		1	6		3	3	3	3	3	3
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	8.0	10.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	16.0		11.0	29.0		11.0	11.0	11.0	11.0	11.0	11.0
Total Split (s)	16.0	41.0		16.0	41.0		26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	19.3%	49.4%		19.3%	49.4%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%
Maximum Green (s)	10.0	35.0		10.0	35.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max		None	None		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		18.0			16.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	9.5	35.8		6.7	33.8			14.4	14.4		14.4	14.4
Actuated g/C Ratio	0.13	0.49		0.09	0.47			0.20	0.20		0.20	0.20
v/c Ratio	0.58	0.53		0.41	0.60			0.66	0.20		0.41	0.35
Control Delay	43.5	15.9		41.3	18.3			38.9	3.5		31.6	7.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	43.5	15.9		41.3	18.3			38.9	3.5		31.6	7.2
LOS	D	B		D	B			D	A		C	A
Approach Delay		19.4			19.7			28.6			16.9	
Approach LOS		B			B			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83			
Actuated Cycle Length: 72.5			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 20.3		Intersection LOS: C	
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Bellew Ave & Arsenal St



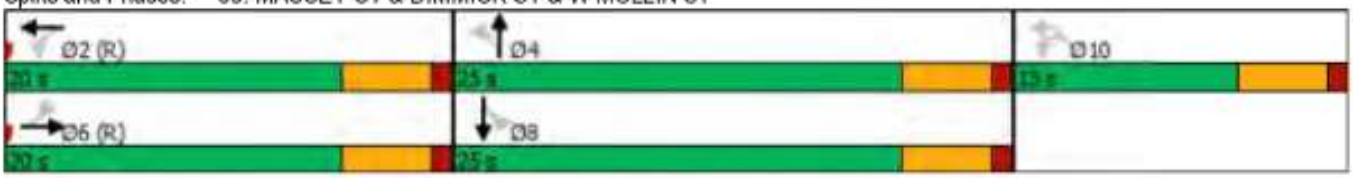
Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Lane Configurations												
Traffic Volume (vph)	4	27	65	11	1	21	54	6	8	69	11	1
Future Volume (vph)	4	27	65	11	1	21	54	6	8	69	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	14	12	15	15	15	12	15	12	12
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		0.915		0.972			0.984			0.981		
Flt Protected		0.995					0.987			0.993		
Satd. Flow (prot)	0	1816	0	1950	0	0	1988	0	0	2016	0	0
Flt Permitted		0.978					0.915			0.961		
Satd. Flow (perm)	0	1785	0	1950	0	0	1843	0	0	1951	0	0
Right Turn on Red			Yes		Yes						Yes	
Satd. Flow (RTOR)		127		4						15		
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		285		253			321			438		
Travel Time (s)		6.5		5.8			7.3			10.0		
Peak Hour Factor	0.33	0.75	0.79	0.75	0.25	0.79	0.90	0.50	0.50	0.86	0.69	0.92
Heavy Vehicles (%)	1%	1%	2%	1%	1%	5%	1%	1%	1%	1%	1%	2%
Adj. Flow (vph)	12	36	82	15	4	27	60	12	16	80	16	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	130	0	19	0	0	99	0	0	112	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0		0			0			0		
Link Offset(ft)		0		0			0			0		
Crosswalk Width(ft)		16		16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	0.92	1.00	0.92	1.00	0.88	0.88	0.88	1.00	0.88	1.00	1.00
Turning Speed (mph)	15		9		9	15		9	15		9	15
Turn Type	Perm	NA		NA		Perm	NA		Perm	NA		Perm
Protected Phases		6		2			4			8		
Permitted Phases	6					4			8			10
Minimum Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (%)	33.3%	33.3%		33.3%		41.7%	41.7%		41.7%	41.7%		25.0%
Maximum Green (s)	15.0	15.0		15.0		20.0	20.0		20.0	20.0		10.0
Yellow Time (s)	4.0	4.0		4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)		0.0		0.0			0.0			0.0		
Total Lost Time (s)		5.0		5.0			5.0			5.0		
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		15.0		15.0			20.0			20.0		
Actuated g/C Ratio		0.25		0.25			0.33			0.33		
v/c Ratio		0.24		0.04			0.16			0.17		
Control Delay		5.7		15.5			15.0			13.3		
Queue Delay		0.0		0.0			0.0			0.0		
Total Delay		5.7		15.5			15.0			13.3		
LOS		A		B			B			B		

Lane Group	NWL	NWR
Lane Configurations		
Traffic Volume (vph)	0	3
Future Volume (vph)	0	3
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Lane Util. Factor	1.00	1.00
Frt	0.899	
Flt Protected	0.988	
Satd. Flow (prot)	1655	0
Flt Permitted	0.988	
Satd. Flow (perm)	1655	0
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	385	
Travel Time (s)	8.8	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	0	3
Shared Lane Traffic (%)		
Lane Group Flow (vph)	4	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	15	9
Turn Type	Perm	
Protected Phases		
Permitted Phases	10	
Minimum Split (s)	15.0	
Total Split (s)	15.0	
Total Split (%)	25.0%	
Maximum Green (s)	10.0	
Yellow Time (s)	4.0	
All-Red Time (s)	1.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	5.0	
Lead/Lag		
Lead-Lag Optimize?		
Act Effct Green (s)	10.0	
Actuated g/C Ratio	0.17	
v/c Ratio	0.01	
Control Delay	21.2	
Queue Delay	0.0	
Total Delay	21.2	
LOS	C	

Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Approach Delay		5.7		15.5			15.0			13.3		
Approach LOS		A		B			B			B		

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 34.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 38: MASSEY ST & DIMMICK ST & W MULLIN ST



Lane Group	NWL	NWR
Approach Delay	21.3	
Approach LOS	C	

Intersection Summary

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	68	44	13	113	58
Future Vol, veh/h	27	68	44	13	113	58
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	81	85	81	72	81
Heavy Vehicles, %	1	3	1	1	1	1
Mvmt Flow	40	84	52	16	157	72

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	447	61	0	0	69	0
Stage 1	61	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.209	-
Pot Cap-1 Maneuver	571	1001	-	-	1538	-
Stage 1	964	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	510	1000	-	-	1537	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	616	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	5.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	764	1537	-
HCM Lane V/C Ratio	-	-	0.162	0.102	-
HCM Control Delay (s)	-	-	10.6	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.3	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	2	2	1	0	3	18	4	125	4	10	80	4
Future Vol, veh/h	2	2	1	0	3	18	4	125	4	10	80	4
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	25	25	75	90	33	78	50	63	87	50
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	4	4	0	4	20	12	160	8	16	92	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	333	322	97	321	322	169	101	0	0	169	0	0
Stage 1	129	129	-	189	189	-	-	-	-	-	-	-
Stage 2	204	193	-	132	133	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	622	597	962	634	597	878	1498	-	-	1415	-	-
Stage 1	877	791	-	815	746	-	-	-	-	-	-	-
Stage 2	800	743	-	874	788	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	592	583	961	618	583	873	1496	-	-	1413	-	-
Mov Cap-2 Maneuver	592	583	-	618	583	-	-	-	-	-	-	-
Stage 1	868	781	-	807	739	-	-	-	-	-	-	-
Stage 2	767	736	-	856	778	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	9.6	0.5	1
HCM LOS	B	A		

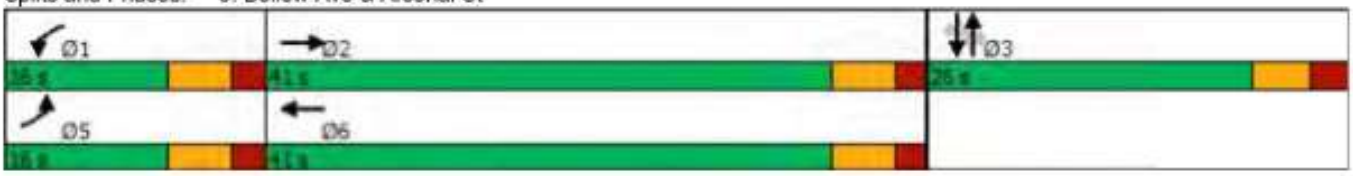
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1496	-	-	675	806	1413	-	-
HCM Lane V/C Ratio	0.008	-	-	0.018	0.03	0.011	-	-
HCM Control Delay (s)	7.4	0	-	10.4	9.6	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

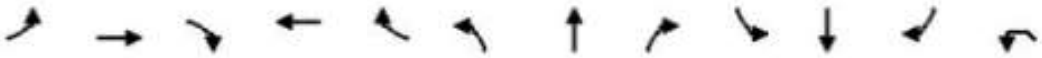
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	420	19	52	422	36	28	8	25	54	51	83
Future Volume (vph)	47	420	19	52	422	36	28	8	25	54	51	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	60		60	0		120	0		80
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	60			130			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.988				0.850			0.850
Flt Protected	0.950			0.950				0.963			0.975	
Satd. Flow (prot)	1787	3483	0	1787	3450	0	0	1496	1495	0	1734	1599
Flt Permitted	0.950			0.950				0.680			0.810	
Satd. Flow (perm)	1787	3483	0	1787	3450	0	0	1056	1495	0	1440	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			13				118			118
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		764			941			373			408	
Travel Time (s)		17.4			21.4			8.5			9.3	
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.66	0.66	0.66	0.72	0.72	0.72
Heavy Vehicles (%)	1%	3%	1%	1%	3%	8%	25%	13%	8%	2%	12%	1%
Adj. Flow (vph)	54	483	22	59	480	41	42	12	38	75	71	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	505	0	59	521	0	0	54	38	0	146	115
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			0			0	
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	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	50	50		50	50		20	50	50	20	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	50	50		50	50		20	50	50	20	50	50
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	0.0		0.0	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	0.0	0.0	0.0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3		3	3		3
Detector Phase	5	2		1	6		3	3	3	3	3	3
Switch Phase												
Minimum Initial (s)	8.0	10.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	16.0		11.0	29.0		11.0	11.0	11.0	11.0	11.0	11.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	16.0	41.0		16.0	41.0		26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	19.3%	49.4%		19.3%	49.4%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%
Maximum Green (s)	10.0	35.0		10.0	35.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max		None	None		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		18.0			16.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	8.6	38.6		6.3	37.7			12.6	12.6		12.6	12.6
Actuated g/C Ratio	0.12	0.55		0.09	0.53			0.18	0.18		0.18	0.18
v/c Ratio	0.25	0.27		0.37	0.28			0.29	0.10		0.57	0.30
Control Delay	33.6	11.2		38.8	11.8			29.4	0.6		35.9	7.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	33.6	11.2		38.8	11.8			29.4	0.6		35.9	7.5
LOS	C	B		D	B			C	A		D	A
Approach Delay		13.3			14.6			17.5			23.4	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83			
Actuated Cycle Length: 70.8			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 15.8		Intersection LOS: B	
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Bellew Ave & Arsenal St





Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Lane Configurations												
Traffic Volume (vph)	3	18	20	8	5	9	80	10	12	54	1	1
Future Volume (vph)	3	18	20	8	5	9	80	10	12	54	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	14	12	15	15	15	12	15	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.99								
Frt		0.929		0.949			0.983			0.994		
Flt Protected		0.997					0.994			0.989		
Satd. Flow (prot)	0	1788	0	1887	0	0	1970	0	0	1991	0	0
Flt Permitted		0.989					0.965			0.934		
Satd. Flow (perm)	0	1773	0	1887	0	0	1913	0	0	1880	0	0
Right Turn on Red			Yes		Yes						Yes	
Satd. Flow (RTOR)		127		8						4		
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		285		253			321			438		
Travel Time (s)		6.5		5.8			7.3			10.0		
Confl. Peds. (#/hr)	2				2							
Peak Hour Factor	0.75	0.64	0.56	0.60	0.63	0.56	0.87	0.63	0.60	0.79	0.25	0.92
Heavy Vehicles (%)	33%	1%	5%	1%	1%	1%	3%	10%	1%	4%	1%	2%
Adj. Flow (vph)	4	28	36	13	8	16	92	16	20	68	4	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	21	0	0	124	0	0	92	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0		0			0			0		
Link Offset(ft)		0		0			0			0		
Crosswalk Width(ft)		16		16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	0.92	1.00	0.92	1.00	0.88	0.88	0.88	1.00	0.88	1.00	1.00
Turning Speed (mph)	15		9		9	15		9	15		9	15
Turn Type	Perm	NA		NA		Perm	NA		Perm	NA		Perm
Protected Phases		6		2			4			8		
Permitted Phases	6					4			8			10
Minimum Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (%)	33.3%	33.3%		33.3%		41.7%	41.7%		41.7%	41.7%		25.0%
Maximum Green (s)	15.0	15.0		15.0		20.0	20.0		20.0	20.0		10.0
Yellow Time (s)	4.0	4.0		4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)		0.0		0.0			0.0			0.0		
Total Lost Time (s)		5.0		5.0			5.0			5.0		
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		15.0		15.0			20.0			20.0		
Actuated g/C Ratio		0.25		0.25			0.33			0.33		
v/c Ratio		0.13		0.04			0.19			0.15		
Control Delay		1.6		14.0			15.3			14.3		
Queue Delay		0.0		0.0			0.0			0.0		

Lane Group	NWL	NWR
Lane Configurations		
Traffic Volume (vph)	0	3
Future Volume (vph)	0	3
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.899	
Flt Protected	0.988	
Satd. Flow (prot)	1655	0
Flt Permitted	0.988	
Satd. Flow (perm)	1655	0
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	416	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	0	3
Shared Lane Traffic (%)		
Lane Group Flow (vph)	4	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	15	9
Turn Type	Perm	
Protected Phases		
Permitted Phases	10	
Minimum Split (s)	15.0	
Total Split (s)	15.0	
Total Split (%)	25.0%	
Maximum Green (s)	10.0	
Yellow Time (s)	4.0	
All-Red Time (s)	1.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	5.0	
Lead/Lag		
Lead-Lag Optimize?		
Act Effct Green (s)	10.0	
Actuated g/C Ratio	0.17	
v/c Ratio	0.01	
Control Delay	21.2	
Queue Delay	0.0	

Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Total Delay		1.6		14.0			15.3			14.3		
LOS		A		B			B			B		
Approach Delay		1.6		14.0			15.3			14.3		
Approach LOS		A		B			B			B		

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.19			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 27.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 38: MASSEY ST & DIMMICK ST & W MULLIN ST

Lane Group	NWL	NWR
Total Delay	21.2	
LOS	C	
Approach Delay	21.3	
Approach LOS	C	

Intersection Summary

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	3	0	3	0	5	14	2	80	0	10	90	2
Future Vol, veh/h	3	0	3	0	5	14	2	80	0	10	90	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	25	25	25	63	88	25	77	25	63	80	50
Heavy Vehicles, %	1	1	33	1	40	7	1	3	1	1	2	1
Mvmt Flow	4	0	12	0	8	16	8	104	0	16	113	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	279	267	115	273	269	104	117	0	0	104	0	0
Stage 1	147	147	-	120	120	-	-	-	-	-	-	-
Stage 2	132	120	-	153	149	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.53	7.11	6.9	6.27	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.9	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.597	3.509	4.36	3.363	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	675	641	860	681	578	937	1478	-	-	1494	-	-
Stage 1	858	777	-	887	729	-	-	-	-	-	-	-
Stage 2	874	798	-	852	707	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	648	630	860	663	568	937	1478	-	-	1494	-	-
Mov Cap-2 Maneuver	648	630	-	663	568	-	-	-	-	-	-	-
Stage 1	853	768	-	882	725	-	-	-	-	-	-	-
Stage 2	845	793	-	831	699	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.8	0.5	0.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	795	770	1494	-	-
HCM Lane V/C Ratio	0.005	-	-	0.02	0.031	0.011	-	-
HCM Control Delay (s)	7.4	0	-	9.6	9.8	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	71	53	14	60	42
Future Vol, veh/h	10	71	53	14	60	42
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	66	66	58	63	53
Heavy Vehicles, %	1	4	1	7	3	1
Mvmt Flow	12	108	80	24	95	79

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	362	93	0	0	105	0
Stage 1	93	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Critical Hdwy	6.41	6.24	-	-	4.13	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.336	-	-	2.227	-
Pot Cap-1 Maneuver	639	959	-	-	1480	-
Stage 1	933	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	596	958	-	-	1479	-
Mov Cap-2 Maneuver	596	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	726	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	4.1
HCM LOS	A		

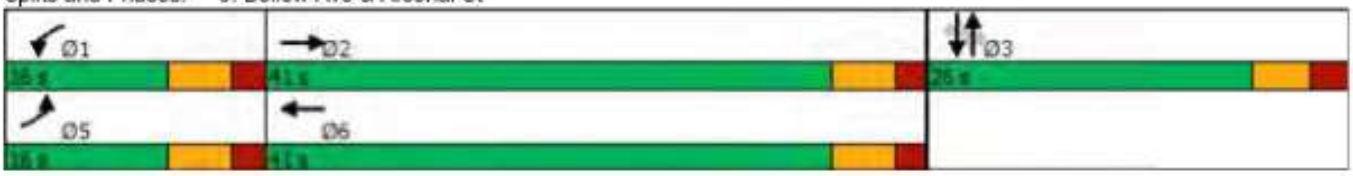
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	903	1479	-
HCM Lane V/C Ratio	-	-	0.132	0.064	-
HCM Control Delay (s)	-	-	9.6	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

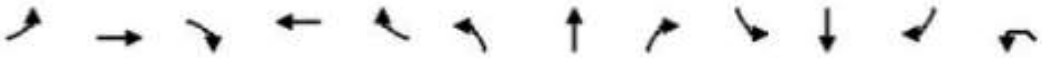
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	515	44	57	512	23	34	10	31	66	62	101
Future Volume (vph)	63	515	44	57	512	23	34	10	31	66	62	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	60		60	0		120	0		80
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	60			130			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.994				0.850			0.850
Flt Protected	0.950			0.950				0.963			0.975	
Satd. Flow (prot)	1787	3468	0	1787	3477	0	0	1496	1495	0	1734	1599
Flt Permitted	0.950			0.950				0.630			0.802	
Satd. Flow (perm)	1787	3468	0	1787	3477	0	0	979	1495	0	1426	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			7				118			140
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		764			941			373			408	
Travel Time (s)		17.4			21.4			8.5			9.3	
Peak Hour Factor	0.88	0.88	0.88	0.87	0.87	0.87	0.66	0.66	0.66	0.72	0.72	0.72
Heavy Vehicles (%)	1%	3%	1%	1%	3%	8%	25%	13%	8%	2%	12%	1%
Adj. Flow (vph)	72	585	50	66	589	26	52	15	47	92	86	140
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	635	0	66	615	0	0	67	47	0	178	140
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			0			0	
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	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	50	50		50	50		20	50	50	20	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	50	50		50	50		20	50	50	20	50	50
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	0.0		0.0	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	0.0	0.0	0.0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3		3	3		3
Detector Phase	5	2		1	6		3	3	3	3	3	3
Switch Phase												
Minimum Initial (s)	8.0	10.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	16.0		11.0	29.0		11.0	11.0	11.0	11.0	11.0	11.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	16.0	41.0		16.0	41.0		26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	19.3%	49.4%		19.3%	49.4%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%
Maximum Green (s)	10.0	35.0		10.0	35.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max		None	None		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		18.0			16.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	8.8	37.4		6.5	35.8			14.0	14.0		14.0	14.0
Actuated g/C Ratio	0.12	0.51		0.09	0.49			0.19	0.19		0.19	0.19
v/c Ratio	0.34	0.36		0.42	0.36			0.36	0.12		0.66	0.33
Control Delay	36.3	13.3		41.3	14.4			31.8	0.7		39.8	7.4
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	36.3	13.3		41.3	14.4			31.8	0.7		39.8	7.4
LOS	D	B		D	B			C	A		D	A
Approach Delay		15.6			17.0			19.0			25.5	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83			
Actuated Cycle Length: 73.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 18.1		Intersection LOS: B	
Intersection Capacity Utilization 50.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Bellew Ave & Arsenal St





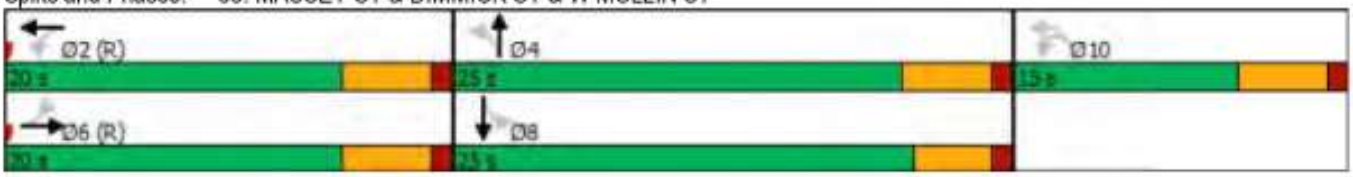
Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Lane Configurations												
Traffic Volume (vph)	4	22	24	11	6	11	98	12	15	66	1	1
Future Volume (vph)	4	22	24	11	6	11	98	12	15	66	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	14	12	15	15	15	12	15	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.99								
Frt		0.929		0.952			0.983			0.995		
Flt Protected		0.997					0.993			0.989		
Satd. Flow (prot)	0	1787	0	1894	0	0	1969	0	0	1992	0	0
Flt Permitted		0.988					0.959			0.927		
Satd. Flow (perm)	0	1770	0	1894	0	0	1902	0	0	1867	0	0
Right Turn on Red			Yes		Yes						Yes	
Satd. Flow (RTOR)		127		10						3		
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		285		253			321			438		
Travel Time (s)		6.5		5.8			7.3			10.0		
Confl. Peds. (#/hr)	2				2							
Peak Hour Factor	0.75	0.64	0.56	0.60	0.63	0.56	0.87	0.63	0.60	0.79	0.25	0.92
Heavy Vehicles (%)	33%	1%	5%	1%	1%	1%	3%	10%	1%	4%	1%	2%
Adj. Flow (vph)	5	34	43	18	10	20	113	19	25	84	4	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	28	0	0	152	0	0	113	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0		0			0			0		
Link Offset(ft)		0		0			0			0		
Crosswalk Width(ft)		16		16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	0.92	1.00	0.92	1.00	0.88	0.88	0.88	1.00	0.88	1.00	1.00
Turning Speed (mph)	15		9		9	15		9	15		9	15
Number of Detectors	1	2		2		1	2		1	2		1
Detector Template	Left	Thru		Thru		Left	Thru		Left	Thru		Left
Leading Detector (ft)	20	100		100		20	100		20	100		20
Trailing Detector (ft)	0	0		0		0	0		0	0		0
Detector 1 Position(ft)	0	0		0		0	0		0	0		0
Detector 1 Size(ft)	20	6		6		20	6		20	6		20
Detector 1 Type	Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	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		0.0
Detector 2 Position(ft)		94		94			94			94		
Detector 2 Size(ft)		6		6			6			6		
Detector 2 Type		Cl+Ex		Cl+Ex			Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0			0.0			0.0		
Turn Type	Perm	NA		NA		Perm	NA		Perm	NA		Perm
Protected Phases		6		2			4			8		

Lane Group	NWL	NWR
Lane Configurations		
Traffic Volume (vph)	0	3
Future Volume (vph)	0	3
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.899	
Flt Protected	0.988	
Satd. Flow (prot)	1655	0
Flt Permitted	0.988	
Satd. Flow (perm)	1655	0
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	423	
Travel Time (s)	9.6	
Confl. Peds. (#/hr)		
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	0	3
Shared Lane Traffic (%)		
Lane Group Flow (vph)	4	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	15	9
Number of Detectors	1	
Detector Template	Left	
Leading Detector (ft)	20	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	20	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type	Perm	
Protected Phases		

Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Permitted Phases	6					4			8			10
Detector Phase	6	6		2		4	4		8	8		10
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0		5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (%)	33.3%	33.3%		33.3%		41.7%	41.7%		41.7%	41.7%		25.0%
Maximum Green (s)	15.0	15.0		15.0		20.0	20.0		20.5	20.5		10.0
Yellow Time (s)	4.0	4.0		4.0		4.0	4.0		3.5	3.5		4.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)		0.0		0.0			0.0			0.0		
Total Lost Time (s)		5.0		5.0			5.0			4.5		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	C-Max	C-Max		C-Max		Max	Max		Max	Max		Max
Act Effct Green (s)		15.0		15.0			20.0			20.5		
Actuated g/C Ratio		0.25		0.25			0.33			0.34		
v/c Ratio		0.15		0.06			0.24			0.18		
Control Delay		2.5		13.8			15.8			14.4		
Queue Delay		0.0		0.0			0.0			0.0		
Total Delay		2.5		13.8			15.8			14.4		
LOS		A		B			B			B		
Approach Delay		2.5		13.8			15.8			14.4		
Approach LOS		A		B			B			B		

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 30.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 38: MASSEY ST & DIMMICK ST & W MULLIN ST



Lane Group	NWL	NWR
Permitted Phases	10	
Detector Phase	10	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	15.0	
Total Split (s)	15.0	
Total Split (%)	25.0%	
Maximum Green (s)	10.0	
Yellow Time (s)	4.0	
All-Red Time (s)	1.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	5.0	
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	
Recall Mode	Max	
Act Effct Green (s)	10.0	
Actuated g/C Ratio	0.17	
v/c Ratio	0.01	
Control Delay	21.2	
Queue Delay	0.0	
Total Delay	21.2	
LOS	C	
Approach Delay	21.3	
Approach LOS	C	

Intersection Summary

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	87	65	17	73	51
Future Vol, veh/h	12	87	65	17	73	51
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	67	67	83	83
Heavy Vehicles, %	1	4	1	7	3	1
Mvmt Flow	17	124	97	25	88	61

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	348	111	0	0	123	0
Stage 1	111	-	-	-	-	-
Stage 2	237	-	-	-	-	-
Critical Hdwy	6.41	6.24	-	-	4.13	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.336	-	-	2.227	-
Pot Cap-1 Maneuver	651	937	-	-	1458	-
Stage 1	916	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	609	936	-	-	1457	-
Mov Cap-2 Maneuver	609	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	4.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	879	1457	-
HCM Lane V/C Ratio	-	-	0.161	0.06	-
HCM Control Delay (s)	-	-	9.9	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Intersection	
Int Delay, s/veh	2

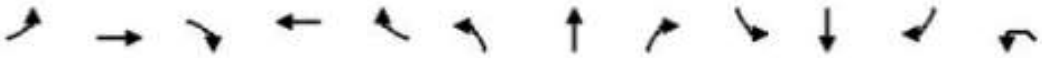
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	4	0	4	0	6	17	2	98	0	12	110	2
Future Vol, veh/h	4	0	4	0	6	17	2	98	0	12	110	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	25	25	25	63	88	25	77	25	63	80	50
Heavy Vehicles, %	1	1	33	1	40	7	1	3	1	1	2	1
Mvmt Flow	5	0	16	0	10	19	8	127	0	19	138	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	336	321	140	329	323	127	142	0	0	127	0	0
Stage 1	178	178	-	143	143	-	-	-	-	-	-	-
Stage 2	158	143	-	186	180	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.53	7.11	6.9	6.27	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.9	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.597	3.509	4.36	3.363	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	620	598	832	626	537	910	1447	-	-	1465	-	-
Stage 1	826	754	-	862	711	-	-	-	-	-	-	-
Stage 2	847	780	-	818	684	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	590	586	832	605	526	910	1447	-	-	1465	-	-
Mov Cap-2 Maneuver	590	586	-	605	526	-	-	-	-	-	-	-
Stage 1	821	743	-	857	707	-	-	-	-	-	-	-
Stage 2	813	775	-	791	674	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	10.1	0.4	0.9
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1447	-	-	755	733	1465	-	-
HCM Lane V/C Ratio	0.006	-	-	0.028	0.039	0.013	-	-
HCM Control Delay (s)	7.5	0	-	9.9	10.1	7.5	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	947	32	62	1029	39	79	87	81	48	40	156
Future Volume (vph)	143	947	32	62	1029	39	79	87	81	48	40	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	60		60	0		120	0		80
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	60			130			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00				0.99		1.00	
Frt		0.991			0.994				0.850			0.850
Flt Protected	0.950			0.950				0.977			0.974	
Satd. Flow (prot)	1787	3479	0	1770	3549	0	0	1820	1583	0	1790	1599
Flt Permitted	0.950			0.950				0.792			0.572	
Satd. Flow (perm)	1784	3479	0	1765	3549	0	0	1475	1562	0	1051	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6				118			186
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		764			941			373			408	
Travel Time (s)		17.4			21.4			8.5			9.3	
Confl. Peds. (#/hr)	5		7	7		5			2	2		
Peak Hour Factor	0.86	0.90	0.46	0.75	0.88	0.80	0.71	0.68	0.83	0.75	0.69	0.84
Heavy Vehicles (%)	1%	1%	27%	2%	1%	1%	2%	2%	2%	1%	6%	1%
Adj. Flow (vph)	166	1052	70	83	1169	49	111	128	98	64	58	186
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	1122	0	83	1218	0	0	239	98	0	122	186
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			0			0	
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	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	50	50		50	50		20	50	50	20	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	50	50		50	50		20	50	50	20	50	50
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	0.0		0.0	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	0.0	0.0	0.0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3		3	3		3
Detector Phase	5	2		1	6		3	3	3	3	3	3
Switch Phase												



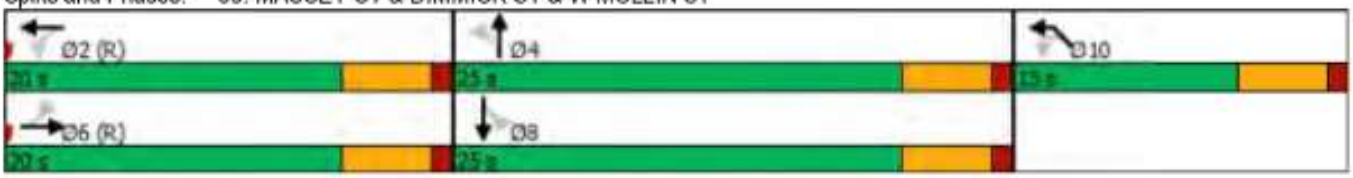
Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Lane Configurations												
Traffic Volume (vph)	5	33	81	14	1	27	66	7	10	84	13	1
Future Volume (vph)	5	33	81	14	1	27	66	7	10	84	13	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	14	12	15	15	15	12	15	12	12
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		0.914		0.977			0.984			0.981		
Flt Protected		0.995					0.986			0.993		
Satd. Flow (prot)	0	1813	0	1960	0	0	1986	0	0	2016	0	0
Flt Permitted		0.977					0.900			0.954		
Satd. Flow (perm)	0	1781	0	1960	0	0	1812	0	0	1937	0	0
Right Turn on Red			Yes		Yes						Yes	
Satd. Flow (RTOR)		127		4						14		
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		285		253			321			438		
Travel Time (s)		6.5		5.8			7.3			10.0		
Peak Hour Factor	0.33	0.75	0.79	0.75	0.25	0.79	0.90	0.50	0.50	0.86	0.69	0.92
Heavy Vehicles (%)	1%	1%	2%	1%	1%	5%	1%	1%	1%	1%	1%	2%
Adj. Flow (vph)	15	44	103	19	4	34	73	14	20	98	19	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	162	0	23	0	0	121	0	0	137	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0		0			0			0		
Link Offset(ft)		0		0			0			0		
Crosswalk Width(ft)		16		16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	0.92	1.00	0.92	1.00	0.88	0.88	0.88	1.00	0.88	1.00	1.00
Turning Speed (mph)	15		9		9	15		9	15		9	15
Turn Type	Perm	NA		NA		Perm	NA		Perm	NA		Perm
Protected Phases		6		2			4			8		
Permitted Phases	6					4			8			10
Minimum Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (%)	33.3%	33.3%		33.3%		41.7%	41.7%		41.7%	41.7%		25.0%
Maximum Green (s)	15.0	15.0		15.0		20.0	20.0		20.0	20.0		10.0
Yellow Time (s)	4.0	4.0		4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)		0.0		0.0			0.0			0.0		
Total Lost Time (s)		5.0		5.0			5.0			5.0		
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		15.0		15.0			20.0			20.0		
Actuated g/C Ratio		0.25		0.25			0.33			0.33		
v/c Ratio		0.30		0.05			0.20			0.21		
Control Delay		7.8		15.6			15.4			13.9		
Queue Delay		0.0		0.0			0.0			0.0		
Total Delay		7.8		15.6			15.4			13.9		
LOS		A		B			B			B		

Lane Group	NWL	NWR
Lane Configurations		
Traffic Volume (vph)	0	3
Future Volume (vph)	0	3
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Lane Util. Factor	1.00	1.00
Frt	0.899	
Flt Protected	0.988	
Satd. Flow (prot)	1655	0
Flt Permitted	0.988	
Satd. Flow (perm)	1655	0
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	462	
Travel Time (s)	10.5	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	0	3
Shared Lane Traffic (%)		
Lane Group Flow (vph)	4	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	15	9
Turn Type	Prot	
Protected Phases	10	
Permitted Phases		
Minimum Split (s)	15.0	
Total Split (s)	15.0	
Total Split (%)	25.0%	
Maximum Green (s)	10.0	
Yellow Time (s)	4.0	
All-Red Time (s)	1.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	5.0	
Lead/Lag		
Lead-Lag Optimize?		
Act Effct Green (s)	10.0	
Actuated g/C Ratio	0.17	
v/c Ratio	0.01	
Control Delay	21.2	
Queue Delay	0.0	
Total Delay	21.2	
LOS	C	

Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Approach Delay		7.8		15.6			15.4			13.9		
Approach LOS		A		B			B			B		

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.30			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 39.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 38: MASSEY ST & DIMMICK ST & W MULLIN ST



Lane Group	NWL	NWR
Approach Delay	21.3	
Approach LOS	C	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	8.0	10.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	16.0		11.0	29.0		11.0	11.0	11.0	11.0	11.0	11.0
Total Split (s)	16.0	41.0		16.0	41.0		26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	19.3%	49.4%		19.3%	49.4%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%
Maximum Green (s)	10.0	35.0		10.0	35.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max		None	None		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		18.0			16.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	9.7	36.6		7.2	31.3			16.5	16.5		16.5	16.5
Actuated g/C Ratio	0.13	0.48		0.09	0.41			0.22	0.22		0.22	0.22
v/c Ratio	0.72	0.67		0.49	0.83			0.74	0.23		0.53	0.38
Control Delay	54.4	19.2		45.0	26.1			43.8	5.3		36.8	6.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	54.4	19.2		45.0	26.1			43.8	5.3		36.8	6.8
LOS	D	B		D	C			D	A		D	A
Approach Delay		23.8			27.3			32.6			18.7	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83			
Actuated Cycle Length: 75.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.6		Intersection LOS: C	
Intersection Capacity Utilization 68.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Bellew Ave & Arsenal St

Intersection	
Int Delay, s/veh	6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	83	54	16	138	71
Future Vol, veh/h	33	83	54	16	138	71
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	81	85	81	72	81
Heavy Vehicles, %	1	3	1	1	1	1
Mvmt Flow	49	102	64	20	192	88

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	547	75	0	0	85	0
Stage 1	75	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Critical Hdwy	6.41	6.23	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.327	-	-	2.209	-
Pot Cap-1 Maneuver	500	984	-	-	1518	-
Stage 1	950	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	433	983	-	-	1517	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	546	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	5.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	698	1517	-
HCM Lane V/C Ratio	-	-	0.216	0.126	-
HCM Control Delay (s)	-	-	11.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.4	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	2	2	1	0	4	22	5	153	5	12	98	5
Future Vol, veh/h	2	2	1	0	4	22	5	153	5	12	98	5
Conflicting Peds, #/hr	5	0	0	0	0	5	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	25	25	75	90	33	78	50	63	87	50
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	4	4	0	5	24	15	196	10	19	113	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	408	394	119	392	394	207	124	0	0	207	0	0
Stage 1	157	157	-	232	232	-	-	-	-	-	-	-
Stage 2	251	237	-	160	162	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	555	544	935	569	544	836	1469	-	-	1370	-	-
Stage 1	848	770	-	773	714	-	-	-	-	-	-	-
Stage 2	755	711	-	845	766	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	520	528	934	551	528	830	1467	-	-	1368	-	-
Mov Cap-2 Maneuver	520	528	-	551	528	-	-	-	-	-	-	-
Stage 1	837	758	-	763	705	-	-	-	-	-	-	-
Stage 2	714	702	-	824	754	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	10	0.5	1
HCM LOS	B	B		

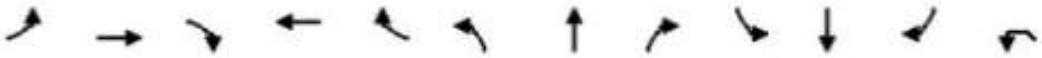
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1467	-	-	614	753	1368	-	-
HCM Lane V/C Ratio	0.01	-	-	0.02	0.04	0.014	-	-
HCM Control Delay (s)	7.5	0	-	11	10	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	947	32	56	1029	39	79	80	53	48	40	156
Future Volume (vph)	143	947	32	56	1029	39	79	80	53	48	40	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	60		60	0		120	0		80
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	60			130			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00				0.99		1.00	
Frt		0.991			0.994				0.850			0.850
Flt Protected	0.950			0.950				0.976			0.974	
Satd. Flow (prot)	1787	3479	0	1770	3549	0	0	1818	1583	0	1790	1599
Flt Permitted	0.950			0.950				0.785			0.592	
Satd. Flow (perm)	1784	3479	0	1765	3549	0	0	1462	1562	0	1087	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6				118			186
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		764			941			373			408	
Travel Time (s)		17.4			21.4			8.5			9.3	
Confl. Peds. (#/hr)	5		7	7		5			2	2		
Peak Hour Factor	0.86	0.90	0.46	0.75	0.88	0.80	0.71	0.68	0.83	0.75	0.69	0.84
Heavy Vehicles (%)	1%	1%	27%	2%	1%	1%	2%	2%	2%	1%	6%	1%
Adj. Flow (vph)	166	1052	70	75	1169	49	111	118	64	64	58	186
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	1122	0	75	1218	0	0	229	64	0	122	186
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			0			0	
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	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	50	50		50	50		20	50	50	20	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	50	50		50	50		20	50	50	20	50	50
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	0.0		0.0	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	0.0	0.0	0.0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3		3	3		3
Detector Phase	5	2		1	6		3	3	3	3	3	3
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	8.0	10.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	16.0		11.0	29.0		11.0	11.0	11.0	11.0	11.0	11.0
Total Split (s)	16.0	41.0		16.0	41.0		26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	19.3%	49.4%		19.3%	49.4%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%
Maximum Green (s)	10.0	35.0		10.0	35.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max		None	None		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		18.0			16.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	9.7	36.7		7.0	31.1			16.0	16.0		16.0	16.0
Actuated g/C Ratio	0.13	0.49		0.09	0.41			0.21	0.21		0.21	0.21
v/c Ratio	0.72	0.66		0.46	0.83			0.74	0.15		0.53	0.38
Control Delay	53.4	18.7		43.7	25.7			43.6	1.8		36.5	6.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	53.4	18.7		43.7	25.7			43.6	1.8		36.5	6.9
LOS	D	B		D	C			D	A		D	A
Approach Delay		23.2			26.8			34.5			18.6	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83			
Actuated Cycle Length: 75.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.2		Intersection LOS: C	
Intersection Capacity Utilization 68.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Bellew Ave & Arsenal St



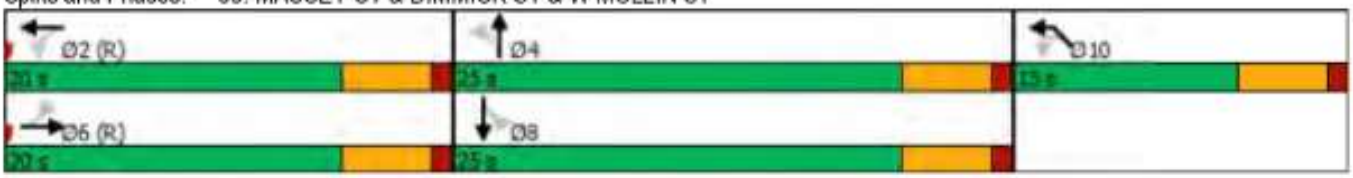
Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Lane Configurations												
Traffic Volume (vph)	18	37	98	19	1	32	66	7	10	84	16	1
Future Volume (vph)	18	37	98	19	1	32	66	7	10	84	16	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	14	12	15	15	15	12	15	12	12
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		0.927		0.981			0.985			0.978		
Flt Protected		0.988					0.984			0.993		
Satd. Flow (prot)	0	1828	0	1968	0	0	1981	0	0	2010	0	0
Flt Permitted		0.918					0.881			0.955		
Satd. Flow (perm)	0	1698	0	1968	0	0	1773	0	0	1933	0	0
Right Turn on Red			Yes		Yes						Yes	
Satd. Flow (RTOR)		127		4						18		
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		285		253			321			438		
Travel Time (s)		6.5		5.8			7.3			10.0		
Peak Hour Factor	0.33	0.75	0.79	0.75	0.25	0.79	0.90	0.50	0.50	0.86	0.69	0.92
Heavy Vehicles (%)	1%	1%	2%	1%	1%	5%	1%	1%	1%	1%	1%	2%
Adj. Flow (vph)	55	49	124	25	4	41	73	14	20	98	23	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	228	0	29	0	0	128	0	0	141	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0		0			0			0		
Link Offset(ft)		0		0			0			0		
Crosswalk Width(ft)		16		16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	0.92	1.00	0.92	1.00	0.88	0.88	0.88	1.00	0.88	1.00	1.00
Turning Speed (mph)	15		9		9	15		9	15		9	15
Turn Type	Perm	NA		NA		Perm	NA		Perm	NA		Perm
Protected Phases		6		2			4			8		
Permitted Phases	6					4			8			10
Minimum Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		15.0
Total Split (%)	33.3%	33.3%		33.3%		41.7%	41.7%		41.7%	41.7%		25.0%
Maximum Green (s)	15.0	15.0		15.0		20.0	20.0		20.0	20.0		10.0
Yellow Time (s)	4.0	4.0		4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)		0.0		0.0			0.0			0.0		
Total Lost Time (s)		5.0		5.0			5.0			5.0		
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		15.0		15.0			20.0			20.0		
Actuated g/C Ratio		0.25		0.25			0.33			0.33		
v/c Ratio		0.44		0.06			0.22			0.21		
Control Delay		12.0		16.0			15.6			13.6		
Queue Delay		0.0		0.0			0.0			0.0		
Total Delay		12.0		16.0			15.6			13.6		
LOS		B		B			B			B		

Lane Group	NWL	NWR
Lane Configurations		
Traffic Volume (vph)	0	3
Future Volume (vph)	0	3
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Lane Util. Factor	1.00	1.00
Frt	0.899	
Flt Protected	0.988	
Satd. Flow (prot)	1655	0
Flt Permitted	0.988	
Satd. Flow (perm)	1655	0
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	468	
Travel Time (s)	10.6	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	0	3
Shared Lane Traffic (%)		
Lane Group Flow (vph)	4	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	15	9
Turn Type	Prot	
Protected Phases	10	
Permitted Phases		
Minimum Split (s)	15.0	
Total Split (s)	15.0	
Total Split (%)	25.0%	
Maximum Green (s)	10.0	
Yellow Time (s)	4.0	
All-Red Time (s)	1.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	5.0	
Lead/Lag		
Lead-Lag Optimize?		
Act Effct Green (s)	10.0	
Actuated g/C Ratio	0.17	
v/c Ratio	0.01	
Control Delay	21.2	
Queue Delay	0.0	
Total Delay	21.2	
LOS	C	

Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Approach Delay		12.0		16.0			15.6			13.6		
Approach LOS		B		B			B			B		

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 38: MASSEY ST & DIMMICK ST & W MULLIN ST



Lane Group	NWL	NWR
Approach Delay	21.3	
Approach LOS	C	

Intersection Summary

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	17	9	8	33	3	83	1	54	16	138	71	5
Future Vol, veh/h	17	9	8	33	3	83	1	54	16	138	71	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	68	92	81	92	85	81	72	81	92
Heavy Vehicles, %	2	2	2	1	2	3	2	1	1	1	1	2
Mvmt Flow	18	10	9	49	3	102	1	64	20	192	88	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	604	562	91	561	554	75	93	0	0	85	0	0
Stage 1	475	475	-	77	77	-	-	-	-	-	-	-
Stage 2	129	87	-	484	477	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.11	6.52	6.23	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.11	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.11	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.509	4.018	3.327	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	410	436	967	440	440	984	1501	-	-	1518	-	-
Stage 1	570	557	-	934	831	-	-	-	-	-	-	-
Stage 2	875	823	-	566	556	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	327	377	967	383	380	983	1501	-	-	1517	-	-
Mov Cap-2 Maneuver	327	377	-	383	380	-	-	-	-	-	-	-
Stage 1	569	482	-	932	829	-	-	-	-	-	-	-
Stage 2	780	821	-	476	481	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	12.3	0.1	5.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1501	-	-	404	644	1517	-	-
HCM Lane V/C Ratio	0.001	-	-	0.091	0.24	0.126	-	-
HCM Control Delay (s)	7.4	0	-	14.8	12.3	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.9	0.4	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	17	5	18	0	5	22	9	153	5	12	98	9
Future Vol, veh/h	17	5	18	0	5	22	9	153	5	12	98	9
Conflicting Peds, #/hr	5	0	0	0	0	5	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	25	25	75	90	33	78	50	63	87	50
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	34	10	72	0	7	24	27	196	10	19	113	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	437	422	123	457	426	207	132	0	0	207	0	0
Stage 1	161	161	-	256	256	-	-	-	-	-	-	-
Stage 2	276	261	-	201	170	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	532	525	931	516	522	836	1459	-	-	1370	-	-
Stage 1	843	767	-	751	697	-	-	-	-	-	-	-
Stage 2	732	694	-	803	760	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	494	505	930	456	502	830	1457	-	-	1368	-	-
Mov Cap-2 Maneuver	494	505	-	456	502	-	-	-	-	-	-	-
Stage 1	824	755	-	734	682	-	-	-	-	-	-	-
Stage 2	685	679	-	720	748	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	10.2	0.9	1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1457	-	-	699	728	1368	-	-
HCM Lane V/C Ratio	0.019	-	-	0.166	0.043	0.014	-	-
HCM Control Delay (s)	7.5	0	-	11.2	10.2	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	9	2	102	111	7
Future Vol, veh/h	26	9	2	102	111	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	10	2	111	121	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	240	125	129	0	-	0
Stage 1	125	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	748	926	1457	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	747	926	1457	-	-	-
Mov Cap-2 Maneuver	747	-	-	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1457	-	786	-	-
HCM Lane V/C Ratio	0.001	-	0.048	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	9	2	102	111	7
Future Vol, veh/h	26	9	2	102	111	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	10	2	111	121	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	240	125	129	0	-	0
Stage 1	125	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	748	926	1457	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	747	926	1457	-	-	-
Mov Cap-2 Maneuver	747	-	-	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.1	0
HCM LOS	A		

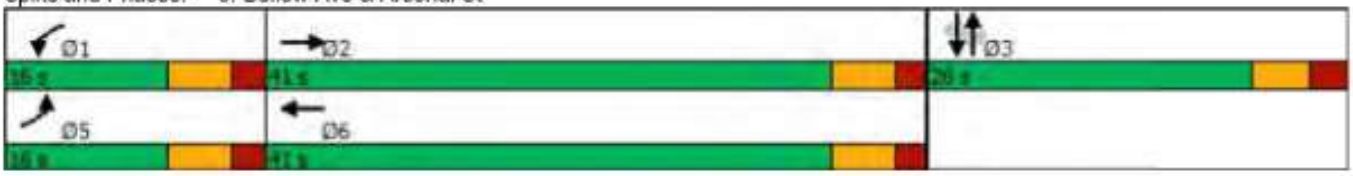
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1457	-	786	-	-
HCM Lane V/C Ratio	0.001	-	0.048	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

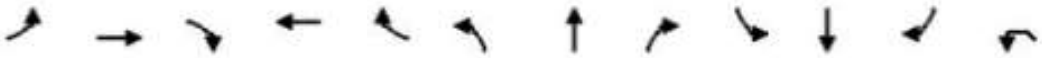
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	515	44	42	512	23	34	9	25	66	62	101
Future Volume (vph)	63	515	44	42	512	23	34	9	25	66	62	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	60		60	0		120	0		80
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	60			130			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.994				0.850			0.850
Flt Protected	0.950			0.950				0.962			0.975	
Satd. Flow (prot)	1787	3468	0	1787	3477	0	0	1493	1495	0	1734	1599
Flt Permitted	0.950			0.950				0.634			0.803	
Satd. Flow (perm)	1787	3468	0	1787	3477	0	0	984	1495	0	1428	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			7				118			140
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		764			941			373			408	
Travel Time (s)		17.4			21.4			8.5			9.3	
Peak Hour Factor	0.88	0.88	0.88	0.87	0.87	0.87	0.66	0.66	0.66	0.72	0.72	0.72
Heavy Vehicles (%)	1%	3%	1%	1%	3%	8%	25%	13%	8%	2%	12%	1%
Adj. Flow (vph)	72	585	50	48	589	26	52	14	38	92	86	140
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	635	0	48	615	0	0	66	38	0	178	140
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			0			0	
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	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	50	50		50	50		20	50	50	20	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	50	50		50	50		20	50	50	20	50	50
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	0.0		0.0	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	0.0	0.0	0.0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3		3	3		3
Detector Phase	5	2		1	6		3	3	3	3	3	3
Switch Phase												
Minimum Initial (s)	8.0	10.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	16.0		11.0	29.0		11.0	11.0	11.0	11.0	11.0	11.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	16.0	41.0		16.0	41.0		26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	19.3%	49.4%		19.3%	49.4%		31.3%	31.3%	31.3%	31.3%	31.3%	31.3%
Maximum Green (s)	10.0	35.0		10.0	35.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		1.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max		None	None		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		18.0			16.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	8.8	37.6		6.0	36.2			13.7	13.7		13.7	13.7
Actuated g/C Ratio	0.12	0.53		0.09	0.51			0.19	0.19		0.19	0.19
v/c Ratio	0.32	0.34		0.32	0.34			0.35	0.10		0.64	0.33
Control Delay	34.7	12.0		38.5	13.3			30.3	0.5		37.7	7.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	34.7	12.0		38.5	13.3			30.3	0.5		37.7	7.3
LOS	C	B		D	B			C	A		D	A
Approach Delay		14.3			15.1			19.4			24.3	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83			
Actuated Cycle Length: 70.5			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 50.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Bellew Ave & Arsenal St





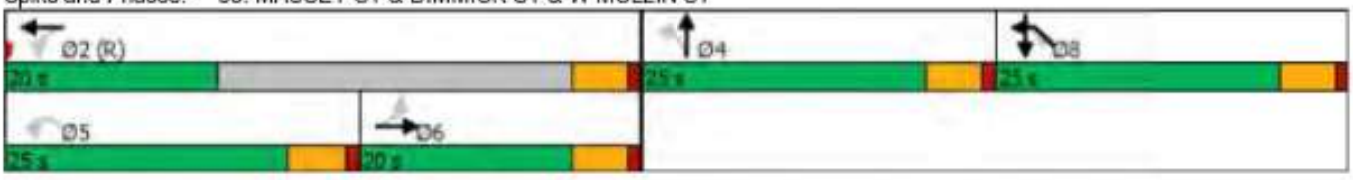
Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Lane Configurations												
Traffic Volume (vph)	5	23	28	14	6	23	98	12	15	66	10	1
Future Volume (vph)	5	23	28	14	6	23	98	12	15	66	10	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	14	12	15	15	15	12	15	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.99								
Frt		0.927		0.959			0.985			0.964		
Flt Protected		0.996					0.988			0.992		
Satd. Flow (prot)	0	1773	0	1911	0	0	1969	0	0	1946	0	0
Flt Permitted		0.989					0.599			0.912		
Satd. Flow (perm)	0	1759	0	1911	0	0	1194	0	0	1789	0	0
Right Turn on Red			Yes		Yes						Yes	
Satd. Flow (RTOR)		138		10						18		
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		285		253			321			438		
Travel Time (s)		6.5		5.8			7.3			10.0		
Confl. Peds. (#/hr)	2				2							
Peak Hour Factor	0.75	0.64	0.56	0.60	0.63	0.56	0.87	0.63	0.60	0.79	0.25	0.92
Heavy Vehicles (%)	33%	1%	5%	1%	1%	1%	3%	10%	1%	4%	1%	2%
Adj. Flow (vph)	7	36	50	23	10	41	113	19	25	84	40	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	33	0	0	173	0	0	149	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0		0			0			0		
Link Offset(ft)		0		0			0			0		
Crosswalk Width(ft)		16		16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	0.92	1.00	0.92	1.00	0.88	0.88	0.88	1.00	0.88	1.00	1.00
Turning Speed (mph)	15		9		9	15		9	15		9	15
Number of Detectors	1	2		2		1	2		1	2		1
Detector Template	Left	Thru		Thru		Left	Thru		Left	Thru		Left
Leading Detector (ft)	20	100		100		20	100		20	100		20
Trailing Detector (ft)	0	0		0		0	0		0	0		0
Detector 1 Position(ft)	0	0		0		0	0		0	0		0
Detector 1 Size(ft)	20	6		6		20	6		20	6		20
Detector 1 Type	Cl+Ex	Cl+Ex		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
Detector 1 Queue (s)	0.0	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		0.0
Detector 2 Position(ft)		94		94			94			94		
Detector 2 Size(ft)		6		6			6			6		
Detector 2 Type		Cl+Ex		Cl+Ex			Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0			0.0			0.0		
Turn Type	Perm	NA		NA		Perm	NA		Perm	NA		Perm
Protected Phases		6		2			4			8!		

Lane Group	NWL	NWR
Lane Configurations		
Traffic Volume (vph)	0	3
Future Volume (vph)	0	3
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.899	
Flt Protected	0.988	
Satd. Flow (prot)	1655	0
Flt Permitted	0.988	
Satd. Flow (perm)	1655	0
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	379	
Travel Time (s)	8.6	
Confl. Peds. (#/hr)		
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	2%
Adj. Flow (vph)	0	3
Shared Lane Traffic (%)		
Lane Group Flow (vph)	4	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	15	9
Number of Detectors	1	
Detector Template	Left	
Leading Detector (ft)	20	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	20	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type	Prot	
Protected Phases	8!	

Lane Group	EBL	EBT	EBR2	WBT	WBR	NBL	NBT	NBR	SBL2	SBT	SBR	NWL2
Permitted Phases	6					4			8			5
Detector Phase	6	6		2		4	4		8	8		5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0		5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		25.0
Total Split (s)	20.0	20.0		20.0		25.0	25.0		25.0	25.0		25.0
Total Split (%)	21.1%	21.1%		21.1%		26.3%	26.3%		26.3%	26.3%		26.3%
Maximum Green (s)	15.0	15.0		15.0		20.0	20.0		20.0	20.0		20.0
Yellow Time (s)	4.0	4.0		4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)		0.0		0.0			0.0			0.0		
Total Lost Time (s)		5.0		5.0			5.0			5.0		
Lead/Lag	Lag	Lag										Lead
Lead-Lag Optimize?	Yes	Yes										
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		C-Max		None	None		None	None		None
Act Effct Green (s)		50.6		50.6			17.2			12.2		
Actuated g/C Ratio		0.53		0.53			0.18			0.13		
v/c Ratio		0.09		0.03			0.80			0.61		
Control Delay		1.2		10.5			63.3			44.4		
Queue Delay		0.0		0.0			0.0			0.0		
Total Delay		1.2		10.5			63.3			44.4		
LOS		A		B			E			D		
Approach Delay		1.2		10.5			63.3			44.4		
Approach LOS		A		B			E			D		

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:WBTL, Start of Green			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 40.2		Intersection LOS: D	
Intersection Capacity Utilization 33.8%		ICU Level of Service A	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 38: MASSEY ST & DIMMICK ST & W MULLIN ST



Lane Group	NWL	NWR
Permitted Phases		
Detector Phase	8	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	25.0	
Total Split (s)	25.0	
Total Split (%)	26.3%	
Maximum Green (s)	20.0	
Yellow Time (s)	4.0	
All-Red Time (s)	1.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	5.0	
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	
Recall Mode	None	
Act Effct Green (s)	12.2	
Actuated g/C Ratio	0.13	
v/c Ratio	0.02	
Control Delay	33.5	
Queue Delay	0.0	
Total Delay	33.5	
LOS	C	
Approach Delay	33.5	
Approach LOS	C	

Intersection Summary

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	3	2	2	12	7	87	5	65	17	73	51	12
Future Vol, veh/h	3	2	2	12	7	87	5	65	17	73	51	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	70	92	70	92	67	67	83	83	92
Heavy Vehicles, %	2	2	2	1	2	4	2	1	7	3	1	2
Mvmt Flow	3	2	2	17	8	124	5	97	25	88	61	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	430	377	68	367	371	111	74	0	0	123	0	0
Stage 1	244	244	-	121	121	-	-	-	-	-	-	-
Stage 2	186	133	-	246	250	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.11	6.52	6.24	4.12	-	-	4.13	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.11	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.11	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.509	4.018	3.336	2.218	-	-	2.227	-	-
Pot Cap-1 Maneuver	535	555	995	591	559	937	1526	-	-	1458	-	-
Stage 1	760	704	-	886	796	-	-	-	-	-	-	-
Stage 2	816	786	-	760	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	435	517	995	557	521	936	1526	-	-	1457	-	-
Mov Cap-2 Maneuver	435	517	-	557	521	-	-	-	-	-	-	-
Stage 1	757	660	-	882	792	-	-	-	-	-	-	-
Stage 2	698	782	-	708	656	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	10.2	0.3	4.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1526	-	-	548	837	1457	-	-
HCM Lane V/C Ratio	0.004	-	-	0.014	0.178	0.06	-	-
HCM Control Delay (s)	7.4	0	-	11.7	10.2	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0.2	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	7	1	7	0	8	17	14	98	0	12	110	12
Future Vol, veh/h	7	1	7	0	8	17	14	98	0	12	110	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	25	25	25	63	88	25	77	25	63	80	50
Heavy Vehicles, %	1	1	33	1	40	7	1	3	1	1	2	1
Mvmt Flow	9	4	28	0	13	19	56	127	0	19	138	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	443	427	150	443	439	127	162	0	0	127	0	0
Stage 1	188	188	-	239	239	-	-	-	-	-	-	-
Stage 2	255	239	-	204	200	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.53	7.11	6.9	6.27	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.9	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.597	3.509	4.36	3.363	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	527	521	821	527	459	910	1423	-	-	1465	-	-
Stage 1	816	746	-	767	643	-	-	-	-	-	-	-
Stage 2	752	709	-	800	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	483	492	821	484	434	910	1423	-	-	1465	-	-
Mov Cap-2 Maneuver	483	492	-	484	434	-	-	-	-	-	-	-
Stage 1	782	736	-	735	616	-	-	-	-	-	-	-
Stage 2	691	679	-	758	661	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	11	2.3	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1423	-	-	671	634	1465	-	-
HCM Lane V/C Ratio	0.039	-	-	0.062	0.05	0.013	-	-
HCM Control Delay (s)	7.6	0	-	10.7	11	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	2	6	107	100	18
Future Vol, veh/h	5	2	6	107	100	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	2	7	116	109	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	249	119	129	0	-	0
Stage 1	119	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	739	933	1457	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	735	933	1457	-	-	-
Mov Cap-2 Maneuver	735	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	896	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1457	-	782	-	-
HCM Lane V/C Ratio	0.004	-	0.01	-	-
HCM Control Delay (s)	7.5	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-