Appendix C

Level of Service Analysis Without Wal-Mart

Analysis Year	Intersection	Traffic Control	Page #
2006 AM	IL Route 108 & Shipman Blacktop	Stop Sign	C-1
2006 PM	IL Route 108 & Shipman Blacktop	Stop Sign	C-2
2026 AM	IL Route 108 & Shipman Blacktop	Stop Sign	C-3
2026 PM	IL Route 108 & Shipman Blacktop	Stop Sign	C-4
2006 AM	IL Route 108 & Chiles Street	Stop Sign	C-5
2006 PM	IL Route 108 & Chiles Street	Stop Sign	C-6
2026 AM	IL Route 108 & Chiles Street	Stop Sign	C-7
2026 PM	IL Route 108 & Chiles Street	Stop Sign	C-8
2006 AM	Shipman Blacktop & Loveless Pkwy.	Stop Sign	C-9
2006 PM	Shipman Blacktop & Loveless Pkwy.	Stop Sign	C-10
2026 AM	Shipman Blacktop & Loveless Pkwy.	Stop Sign	C-11
2026 PM	Shipman Blacktop & Loveless Pkwy.	Stop Sign	C-12

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Shipman
Agency/Co.	CMT	Jurisdiction	
Date Performed	3/15/2005	Analysis Year	2006 - no W/M
Analysis Time Period	AM Peak		

Project Description

East/West Street: IL Route 108	North/South Street: Shipman
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	398	105	101	512	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	442	116	112	568	0
Proportion of heavy vehicles, P_{HV}	0	--	--	3	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	1	1	0
Configuration	LTR			L		TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	77	0	115	0	0	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	85	0	127	0	0	5
Proportion of heavy vehicles, P_{HV}	10	0	5	2	0	0
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	L		LTR			LTR	
Volume, v (vph)	0	112		212			5	
Capacity, c_m (vph)	1014	1008		229			526	
v/c ratio	0.00	0.11		0.93			0.01	
Queue length (95%)	0.00	0.37		7.92			0.03	
Control Delay (s/veh)	8.6	9.0		86.6			11.9	
LOS	A	A		F			B	
Approach delay (s/veh)	--	--	86.6			11.9		
Approach LOS	--	--	F			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Shipman
Agency/Co.	CMT	Jurisdiction	
Date Performed	12/2/2004	Analysis Year	2006 - no W/M
Analysis Time Period	PM Peak		

Project Description	
East/West Street: IL Route 108	North/South Street: Shipman
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	499	75	100	497	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	554	83	111	552	5
Proportion of heavy vehicles, P_{HV}	0	--	--	3	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	51	3	66	1	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	56	3	73	1	0	0
Proportion of heavy vehicles, P_{HV}	10	0	5	2	0	0
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
Volume, v (vph)	0	111		132			1	
Capacity, c_m (vph)	1024	942		183			84	
v/c ratio	0.00	0.12		0.72			0.01	
Queue length (95%)	0.00	0.40		4.54			0.04	
Control Delay (s/veh)	8.5	9.3		63.5			48.4	
LOS	A	A		F			E	
Approach delay (s/veh)	--	--	63.5			48.4		
Approach LOS	--	--	F			E		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Shipman
Agency/Co.	CMT	Jurisdiction	
Date Performed	3/15/2005	Analysis Year	2026 - no W/M
Analysis Time Period	AM Peak		

Project Description	
East/West Street: IL Route 108	North/South Street: Shipman
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	486	128	123	625	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	540	142	136	694	0
Proportion of heavy vehicles, P_{HV}	0	--	--	3	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	1	1	0
Configuration	LTR			L		TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	94	0	140	0	0	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	104	0	155	0	0	5
Proportion of heavy vehicles, P_{HV}	10	0	5	2	0	0
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	L		LTR			LTR	
Volume, v (vph)	0	136		259			5	
Capacity, c_m (vph)	911	906		150			446	
v/c ratio	0.00	0.15		1.73			0.01	
Queue length (95%)	0.00	0.53		18.79			0.03	
Control Delay (s/veh)	9.0	9.7		405.5			13.2	
LOS	A	A		F			B	
Approach delay (s/veh)	--	--	405.5			13.2		
Approach LOS	--	--	F			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Shipman
Agency/Co.	CMT	Jurisdiction	
Date Performed	12/2/2004	Analysis Year	2026 - no W/M
Analysis Time Period	PM Peak		

Project Description	
East/West Street: IL Route 108	North/South Street: Shipman
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	609	91	122	605	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	676	101	135	672	5
Proportion of heavy vehicles, P_{HV}	0	--	--	3	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	1	1	0
Configuration	LTR			L		TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	62	3	80	1	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	68	3	88	1	0	0
Proportion of heavy vehicles, P_{HV}	10	0	5	2	0	0
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	L		LTR			LTR	
Volume, v (vph)	0	135		159			1	
Capacity, c_m (vph)	924	835		121			48	
v/c ratio	0.00	0.16		1.31			0.02	
Queue length (95%)	0.00	0.57		10.45			0.06	
Control Delay (s/veh)	8.9	10.1		255.7			81.6	
LOS	A	B		F			F	
Approach delay (s/veh)	--	--	255.7			81.6		
Approach LOS	--	--	F			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Chiles St.
Agency/Co.	CMT	Jurisdiction	
Date Performed	4/25/2005	Analysis Year	2006 - no W/M
Analysis Time Period	AM Peak		

Project Description

East/West Street: IL Route 108	North/South Street: Chiles St.
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	66	460	2	6	540	48
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	73	511	2	6	600	53
Proportion of heavy vehicles, P_{HV}	2	–	–	2	–	–
Median type	Undivided					
RT Channelized?			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	3	40	0	52
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	0	3	44	0	57
Proportion of heavy vehicles, P_{HV}	2	2	2	2	2	2
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
Volume, v (vph)	73	6		3			101	
Capacity, c_m (vph)	934	1052		562			220	
v/c ratio	0.08	0.01		0.01			0.46	
Queue length (95%)	0.25	0.02		0.02			2.22	
Control Delay (s/veh)	9.2	8.4		11.4			34.5	
LOS	A	A		B			D	
Approach delay (s/veh)	–	–	11.4			34.5		
Approach LOS	–	–	B			D		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Chiles St.
Agency/Co.	CMT	Jurisdiction	
Date Performed	4/25/2005	Analysis Year	2006 - no W/M
Analysis Time Period	PM Peak		

Project Description

East/West Street: IL Route 108	North/South Street: Chiles St.
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	36	518	1	10	504	34
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	40	575	1	11	560	37
Proportion of heavy vehicles, P_{HV}	2	--	--	2	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	4	0	14	42	1	32
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	4	0	15	46	1	35
Proportion of heavy vehicles, P_{HV}	2	2	2	2	2	2
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
Volume, v (vph)	40	11		19			82	
Capacity, c_m (vph)	980	997		315			200	
v/c ratio	0.04	0.01		0.06			0.41	
Queue length (95%)	0.13	0.03		0.19			1.85	
Control Delay (s/veh)	8.8	8.7		17.2			35.0	
LOS	A	A		C			D	
Approach delay (s/veh)	--	--	17.2			35.0		
Approach LOS	--	--	C			D		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Chiles St.
Agency/Co.	CMT	Jurisdiction	
Date Performed	4/25/2005	Analysis Year	2026 - no W/M
Analysis Time Period	AM Peak		

Project Description

East/West Street: IL Route 108	North/South Street: Chiles St.
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	80	562	2	6	659	59
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	88	624	2	6	732	65
Proportion of heavy vehicles, P_{HV}	2	--	--	2	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	3	49	0	63
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	0	0	3	54	0	70
Proportion of heavy vehicles, P_{HV}	2	2	2	2	2	2
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
Volume, v (vph)	88	6		3			124	
Capacity, c_m (vph)	825	956		485			148	
v/c ratio	0.11	0.01		0.01			0.84	
Queue length (95%)	0.36	0.02		0.02			5.48	
Control Delay (s/veh)	9.9	8.8		12.5			95.3	
LOS	A	A		B			F	
Approach delay (s/veh)	--	--	12.5			95.3		
Approach LOS	--	--	B			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	RMM	Intersection	IL Route 108 & Chiles St.
Agency/Co.	CMT	Jurisdiction	
Date Performed	4/25/2005	Analysis Year	2026 - no W/M
Analysis Time Period	PM Peak		

Project Description

East/West Street: IL Route 108	North/South Street: Chiles St.
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	44	634	1	10	615	42
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	48	704	1	11	683	46
Proportion of heavy vehicles, P_{HV}	2	--	--	2	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	4	0	14	52	1	39
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	4	0	15	57	1	43
Proportion of heavy vehicles, P_{HV}	2	2	2	2	2	2
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
Volume, v (vph)	48	11		19			101	
Capacity, c_m (vph)	875	893		224			132	
v/c ratio	0.05	0.01		0.08			0.77	
Queue length (95%)	0.17	0.04		0.28			4.51	
Control Delay (s/veh)	9.4	9.1		22.6			89.8	
LOS	A	A		C			F	
Approach delay (s/veh)	--	--	22.6			89.8		
Approach LOS	--	--	C			F		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RMM*	Intersection	*Shipman & Loveless*
Agency/Co.	*CMT*	Jurisdiction	
Date Performed	*3/15/2005*	Analysis Year	*2006 - no W-M*
Analysis Time Period	*AM Peak*		

Project Description	
East/West Street: *Loveless Pkwy*	North/South Street: *Shipman*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*305*	*8*	*2*	*241*	*0*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*0*	*338*	*8*	*2*	*267*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*19*	*0*	*5*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*21*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*2*		*26*				
C (m) (vph)		*1213*		*488*				
v/c		*0.00*		*0.05*				
95% queue length		*0.00*		*0.17*				
Control Delay		*8.0*		*12.8*				
LOS		*A*		*B*				
Approach Delay	--	--	*12.8*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RMM*	Intersection	*Shipman & Loveless*
Agency/Co.	*CMT*	Jurisdiction	
Date Performed	*12/2/2004*	Analysis Year	*2006 - no W-M*
Analysis Time Period	*PM Peak*		

Project Description

East/West Street: *Loveless Pkwy*	North/South Street: *Shipman*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	151	13	30	171	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	167	14	33	190	0
Percent Heavy Vehicles	0	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	9	0	10	0	0	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	10	0	11	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		33		21				
C (m) (vph)		1394		694				
v/c		0.02		0.03				
95% queue length		0.07		0.09				
Control Delay		7.6		10.3				
LOS		A		B				
Approach Delay	--	--	10.3					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RMM*	Intersection	*Shipman & Loveless*
Agency/Co.	*CMT*	Jurisdiction	
Date Performed	*3/15/2005*	Analysis Year	*2026 - no W-M*
Analysis Time Period	*AM Peak*		

Project Description

East/West Street: *Loveless Pkwy*	North/South Street: *Shipman*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	372	10	2	294	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	0	413	11	2	326	0
Percent Heavy Vehicles	0	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	24	0	6	0	0	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	26	0	6	0	0	0
Percent Heavy Vehicles	2	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		2		32				
C (m) (vph)		1135		410				
v/c		0.00		0.08				
95% queue length		0.01		0.25				
Control Delay		8.2		14.5				
LOS		A		B				
Approach Delay	--	--	14.5					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*RMM*	Intersection	*Shipman & Loveless*
Agency/Co.	*CMT*	Jurisdiction	
Date Performed	*12/2/2004*	Analysis Year	*2026 - no W/M*
Analysis Time Period	*PM Peak*		
Project Description			
East/West Street: *Loveless Pkwy*		North/South Street: *Shipman*	
Intersection Orientation: *North-South*		Study Period (hrs): *0.25*	

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*184*	*16*	*36*	*209*	*0*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*0*	*204*	*17*	*40*	*232*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*11*	*0*	*12*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate, HFR	*12*	*0*	*13*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*40*		*25*				
C (m) (vph)		*1348*		*629*				
v/c		*0.03*		*0.04*				
95% queue length		*0.09*		*0.12*				
Control Delay		*7.8*		*11.0*				
LOS		*A*		*B*				
Approach Delay	--	--	*11.0*					
Approach LOS	--	--	*B*					

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Appendix D

Level of Service Analysis With Wal-Mart

Analysis Year	Intersection	Traffic Control	Page #
2006 AM	IL Route 108 & Shipman Blacktop	Signal Lights	D-1
2006 PM	IL Route 108 & Shipman Blacktop	Signal Lights	D-2
2026 AM	IL Route 108 & Shipman Blacktop	Signal Lights	D-3
2026 PM	IL Route 108 & Shipman Blacktop	Signal Lights	D-4
2006 AM	IL Route 108 & Chiles Street	Signal Lights	D-5
2006 PM	IL Route 108 & Chiles Street	Signal Lights	D-6
2026 AM	IL Route 108 & Chiles Street	Signal Lights	D-7
2026 PM	IL Route 108 & Chiles Street	Signal Lights	D-8
2006 AM	Shipman Blacktop & Loveless Pkwy.	Signal Lights	D-9
2006 PM	Shipman Blacktop & Loveless Pkwy.	Signal Lights	D-10
2026 AM	Shipman Blacktop & Loveless Pkwy.	Signal Lights	D-11
2026 PM	Shipman Blacktop & Loveless Pkwy.	Signal Lights	D-12
2006 AM	Loveless Pkwy. & West Entrance	Stop Sign	D-13
2006 PM	Loveless Pkwy. & West Entrance	Stop Sign	D-14
2026 AM	Loveless Pkwy. & West Entrance	Stop Sign	D-15
2026 PM	Loveless Pkwy. & West Entrance	Stop Sign	D-16
2006 AM	Loveless Pkwy. & East Entrance	Stop Sign	D-17
2006 PM	Loveless Pkwy. & East Entrance	Stop Sign	D-18
2026 AM	Loveless Pkwy. & East Entrance	Stop Sign	D-19
2026 PM	Loveless Pkwy. & East Entrance	Stop Sign	D-20

SHORT REPORT

General Information		Site Information	
Analyst	RMM	Intersection	Shipman & IL Route 108
Agency or Co.	CMT	Area Type	All other areas
Date Performed	7/12/2005	Jurisdiction	
Time Period	AM Peak	Analysis Year	2006 - with W-M

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	1	1	0	0	1	1	0	1	0
Lane group		TR		L	T			LT	R		LTR	
Volume (vph)		381	131	165	489		111	0	177	0	0	5
% Heavy veh		5	3	4	5		10	8	5	2	8	0
PHF		0.90	0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)		A	A	A	A		A	A	A	A	A	A
Startup lost time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext. eff. green		2.0		2.0	2.0			2.0	2.0		2.0	
Arrival type		3		3	3			3	3		3	
Unit Extension		3.0		3.0	3.0			3.0	3.0		3.0	
Ped/Bike/RTOR Volume	0		0				0		35	0		0
Lane Width		12.0		12.0	12.0			12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0			0	0		0	
Unit Extension		3.0		3.0	3.0			3.0	3.0		3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 42.0	G =	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 70.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		569		183	543			123	158		6	
Lane group cap.		1053		404	1086			360	439		470	
v/c ratio		0.54		0.45	0.50			0.34	0.36		0.01	
Green ratio		0.60		0.60	0.60			0.29	0.29		0.29	
Unif. delay d1		8.3		7.7	8.0			19.8	19.9		17.9	
Delay factor k		0.14		0.11	0.11			0.11	0.11		0.11	
Increm. delay d2		0.6		0.8	0.4			0.6	0.5		0.0	
PF factor		1.000		1.000	1.000			1.000	1.000		1.000	
Control delay		8.9		8.5	8.4			20.4	20.4		17.9	
Lane group LOS		A		A	A			C	C		B	
Apprch. delay	8.9			8.4			20.4			17.9		
Approach LOS	A			A			C			B		
Intersec. delay	10.7			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	RMM	Intersection	Shipman & IL Route 108
Agency or Co.	CMT	Area Type	All other areas
Date Performed	7/12/2005	Jurisdiction	
Time Period	PM Peak	Analysis Year	2006 - with W-M

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	1	1	0	1	0	1	0	1	0
Lane group		TR		L	T		L		R		LTR	
Volume (vph)		468	129	233	462		110		199	0	0	1
% Heavy veh		5	3	4	5		10		5	2	8	0
PHF		0.90	0.90	0.90	0.90		0.90		0.90	0.90	0.90	0.90
Actuated (P/A)		A	A	A	A		A		A	A	A	A
Startup lost time		2.0		2.0	2.0		2.0		2.0		2.0	
Ext. eff. green		2.0		2.0	2.0		2.0		2.0		2.0	
Arrival type		3		3	3		3		3		3	
Unit Extension		3.0		3.0	3.0		3.0		3.0		3.0	
Ped/Bike/RTOR Volume	0		0				0		0	0		0
Lane Width		12.0		12.0	12.0		12.0		12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0		0		0		0	
Unit Extension		3.0		3.0	3.0		3.0		3.0		3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 56.0	G =	G =	G =	G = 16.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		663		259	513		122		221		1	
Lane group cap.		1235		465	1267		262		308		329	
v/c ratio		0.54		0.56	0.40		0.47		0.72		0.00	
Green ratio		0.70		0.70	0.70		0.20		0.20		0.20	
Unif. delay d1		5.8		5.9	5.0		28.2		29.9		25.6	
Delay factor k		0.14		0.15	0.11		0.11		0.28		0.11	
Increm. delay d2		0.5		1.5	0.2		1.3		7.8		0.0	
PF factor		1.000		1.000	1.000		1.000		1.000		1.000	
Control delay		6.2		7.4	5.2		29.5		37.7		25.6	
Lane group LOS		A		A	A		C		D		C	
Apprch. delay	6.2			6.0			34.8			25.6		
Approach LOS	A			A			C			C		
Intersec. delay	11.6			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	RMM	Intersection	Shipman & IL Route 108
Agency or Co.	CMT	Area Type	All other areas
Date Performed	7/12/2005	Jurisdiction	
Time Period	AM Peak	Analysis Year	2006 - with W-M

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	1	1	0	1	0	1	0	1	0
Lane group		TR		L	T		L		R		LTR	
Volume (vph)		469	154	187	602		128		202	0	0	5
% Heavy veh		5	3	4	5		10		5	2	8	0
PHF		0.90	0.90	0.90	0.90		0.90		0.90	0.90	0.90	0.90
Actuated (P/A)		A	A	A	A		A		A	A	A	A
Startup lost time		2.0		2.0	2.0		2.0		2.0		2.0	
Ext. eff. green		2.0		2.0	2.0		2.0		2.0		2.0	
Arrival type		3		3	3		3		3		3	
Unit Extension		3.0		3.0	3.0		3.0		3.0		3.0	
Ped/Bike/RTOR Volume	0		0				0		35	0		0
Lane Width		12.0		12.0	12.0		12.0		12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0		0		0		0	
Unit Extension		3.0		3.0	3.0		3.0		3.0		3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 42.0	G =	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 70.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		692		208	669		142		186		6	
Lane group cap.		1054		340	1086		372		439		470	
v/c ratio		0.66		0.61	0.62		0.38		0.42		0.01	
Green ratio		0.60		0.60	0.60		0.29		0.29		0.29	
Unif. delay d1		9.2		8.8	8.9		20.0		20.3		17.9	
Delay factor k		0.23		0.20	0.20		0.11		0.11		0.11	
Increm. delay d2		1.5		3.2	1.1		0.7		0.7		0.0	
PF factor		1.000		1.000	1.000		1.000		1.000		1.000	
Control delay		10.7		12.1	9.9		20.7		21.0		17.9	
Lane group LOS		B		B	A		C		C		B	
Apprch. delay	10.7			10.4			20.9			17.9		
Approach LOS	B			B			C			B		
Intersec. delay	12.4			Intersection LOS						B		

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