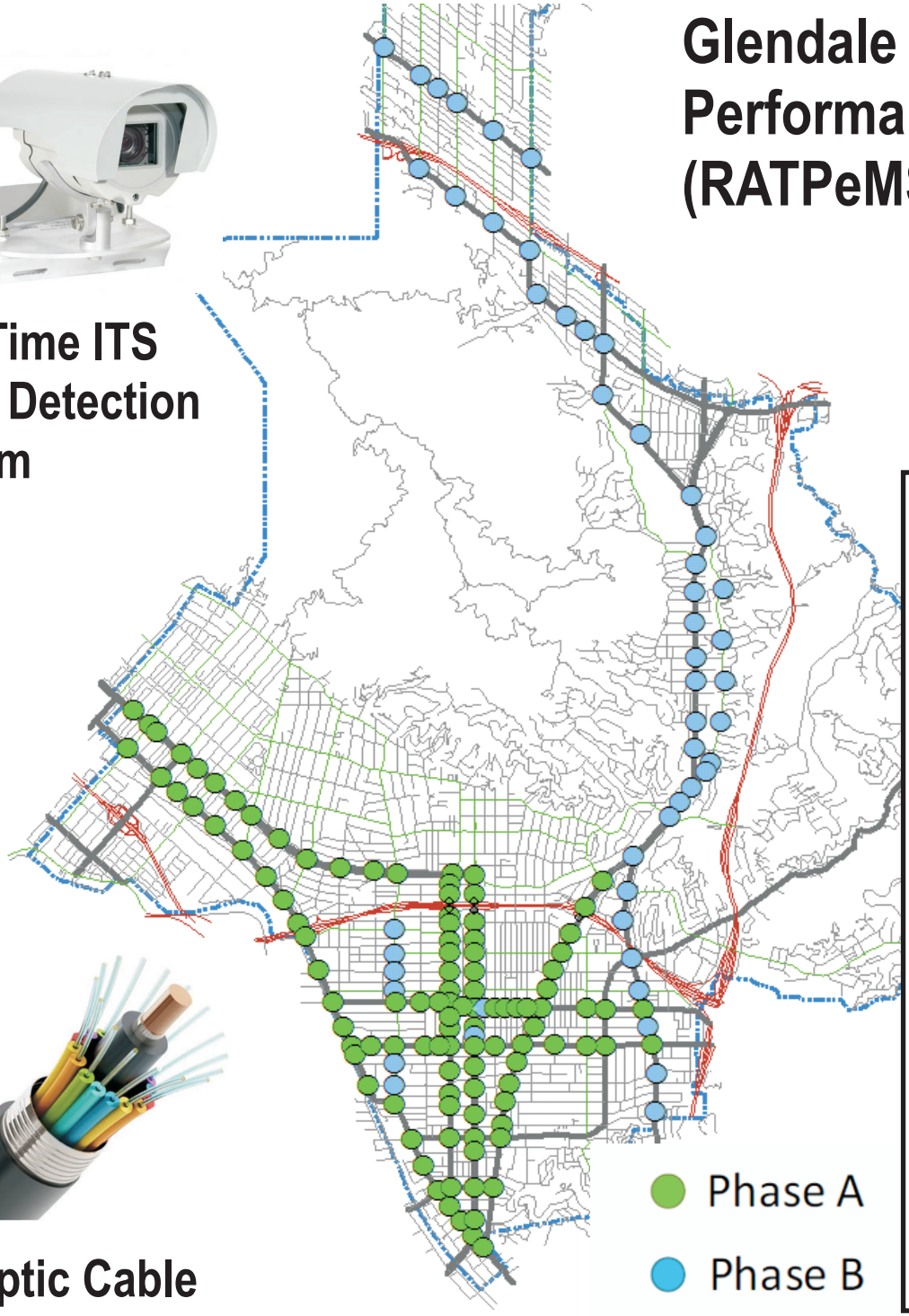
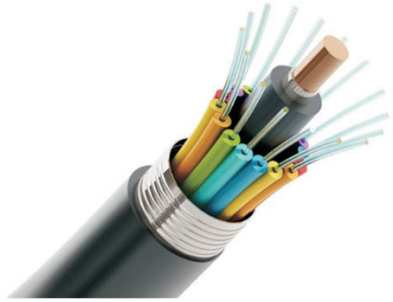
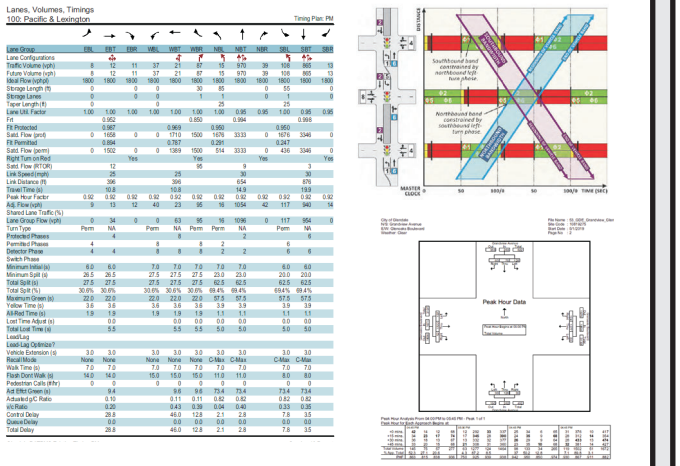
Glendale Regional Arterial Traffic Performance Measurement System (RATPeMS) Project

Real Time ITS Video Detection System





Fiber Optic Cable



Lanes, Volumes, Timings
100: Pacific & Lexington

Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	12	11	37	21	87	15	970	39	108	865	13
Future Volume (vph)	8	12	11	37	21	87	15	970	39	108	865	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		30	85		0	55		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	0			0			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.952			0.850			0.994			0.998	
Flt Protected		0.987			0.969		0.950			0.950		
Satd. Flow (prot)	0	1658	0	0	1710	1500	1676	3333	0	1676	3346	0
Flt Permitted		0.894			0.787		0.291			0.247		
Satd. Flow (perm)	0	1502	0	0	1389	1500	514	3333	0	436	3346	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				95		9			3	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		396			396			654			676	
Travel Time (s)		10.8			10.8			14.9			19.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	13	12	40	23	95	16	1054	42	117	940	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	0	0	63	95	16	1096	0	117	954	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		7.0	7.0	7.0	7.0	7.0		8.0	8.0	
Minimum Split (s)	26.5	26.5		27.5	27.5	27.5	23.0	23.0		20.0	20.0	
Total Split (s)	27.5	27.5		27.5	27.5	27.5	62.5	62.5		62.5	62.5	
Total Split (%)	30.6%	30.6%		30.6%	30.6%	30.6%	69.4%	69.4%		69.4%	69.4%	
Maximum Green (s)	22.0	22.0		22.0	22.0	22.0	57.5	57.5		57.5	57.5	
Yellow Time (s)	3.6	3.6		3.6	3.6	3.6	3.9	3.9		3.9	3.9	
All-Red Time (s)	1.9	1.9		1.9	1.9	1.9	1.1	1.1		1.1	1.1	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.5			5.5	5.5	5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	14.0	14.0		15.0	15.0	15.0	11.0	11.0		8.0	8.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)		9.4			9.6	9.6	73.4	73.4		73.4	73.4	
Actuated g/C Ratio		0.10			0.11	0.11	0.82	0.82		0.82	0.82	
v/c Ratio		0.20			0.43	0.38	0.04	0.40		0.33	0.35	
Control Delay		39.8			46.0	12.8	2.1	2.8		7.8	3.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		39.8			46.0	12.8	2.1	2.8		7.8	3.5	

City of Glendale RTSSP- Timing Parameters

				Required Yellow Clearance Calculation					Direction					Posted Speed or Prima Facie							
#	Major Street & Direction		Intersection	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ1
1	Foothill Blvd	E-W	Lowell Ave		EB/WB		SB		D	SBL	NB		40		30			30	30	
2	Foothill Blvd	E-W	Boston Ave		EB/WB		NB/SB		D				40		30					
3	Foothill Blvd	E-W	Lauderdale Ave		EB/WB		NB/SB		D				40		25					
4	Foothill Blvd	E-W	Dunsmore Ave		EB/WB		NB/SB		D				40		25					
5	Foothill Blvd	E-W	New York Ave		EB/WB		NB/SB		D				40		30					
6	Foothill Blvd	E-W	Pennsylvania Ave		WB	SBL	NB	WBL	EB	NBL	SB		40	35	35	40	40	35	35	
7	Honolulu Ave	E-W	Boston Ave		EB/WB		NB/SB		D				35		25					
8	Honolulu Ave	E-W	Dunsmore Ave		EB		SB		WB		NB		35		25		35		25	
9	Honolulu Ave	E-W	New York Ave		EB		SB		WB		NB		35		25		35		25	
10	Honolulu Ave	E-W	Pennsylvania Ave		NB/SB		EBL		D				35		35					
11	Honolulu Ave	E-W	Whiting Woods Rd	WBL	EB		NBL		WB			35	35		25		35			3.0
12	Honolulu Ave	E-W	Ramsdell Ave		EB		SB		WB		NB		35		25		25		25	
13	Colorado St	E-W	Chevy Chase Dr	WBL	EB	NBL	SB	EBL	WB	SBL	NB	35	35	35	35	35	35	35	35	3.5
14	La Crescenta Ave	N-S	Honolulu Ave	SBL	NB	WBL	EB	NBL	SB	EBL	WB	40	40	35	25	40	40	25	35	3.0
15	La Crescenta Ave	N-S	Shirleyann St		NB/SB		EBL		D		D		40		25					
16	La Crescenta Ave	E-W	Roselawn Ave		EB/WB		SBL						40		25					
17	La Crescenta Ave	E-W	Verdugo Rd	SB	NB-W			NB-N	PED			40	40			40	40			4.3
18	Cañada Blvd	N-S	Verdugo Rd/Menlo Dr	SB	EB		EB/WB		NB			40	40		40		40			4.3
19	Cañada Blvd	N-S	Country Club Dr/Santa Maria		NB	EB	WB		SB		PED		35	25	25		35		15	
20	Cañada Blvd	N-S	Glorietta Ave		NB/SB		WBL		D				35		25					
21	Cañada Blvd	N-S	Del Valle Ave		NB/SB		EB/WB		D				35		25					
22	Cañada Blvd	N-S	Opecheewy		NB/SB		EB/WB		D		D		35		25					
23	Cañada Blvd	N-S	Wabasso Wy		NB/SB		EB/WB		D				35		25					
24	Cañada Blvd	N-S	Colina Dr		NB/SB		EB/WB		D				35		25					
25	Cañada Blvd	N-S	Parking Lot 34/Verdugo Park		NB		EB	NBL	SB		WB		35		25	35	35		25	
26	Verdugo Rd	N-S	Glorietta Ave		NB		PED		SB		EBL		35		25		35		25	
27	Verdugo Rd	N-S	Fern Ln		NB		WB		SB		EB		35		30		35		25	
28	Verdugo Rd	N-S	Wabasso Wy		NB		WB		SB		EB		35		25		35		25	

Optimized Signal Timing