APPENDIX E

Traffic Data

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & Riverdale*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/18/2011*	Jurisdiction	*City of Yonkers*
Time Period	*AM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Distribution Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*0*	*2*	*0*	*1*	*1*	*1*	*1*	*2*	*0*	*1*	*2*	*1*
Lane Group		*LTR*		*L*	*T*	*R*	*L*	*TR*		*L*	*T*	*R*
Volume, V (vph)	*20*	*188*	*46*	*360*	*337*	*207*	*86*	*394*	*277*	*243*	*456*	*61*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Extension of Effective Green, e		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Arrival Type, AT		*3*		*4*	*4*	*6*	*3*	*3*		*1*	*5*	*6*
Unit Extension, UE		*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*
Filtering/Metering, I		*1.000*		*0.888*	*0.888*	*0.888*	*1.000*	*1.000*		*0.958*	*0.958*	*0.958*
Initial Unmet Demand, Q_b		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Ped / Bike / RTOR Volumes	*25*	*0*	*19*	*25*	*0*	*136*	*25*	*0*	*127*	*25*	*0*	*44*
Lane Width		*12.0*		*12.0*	*12.0*	*12.0*	*10.0*	*12.0*		*11.0*	*11.0*	*11.0*
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B		*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	WB Only	EW Perm	03	04	Excl. Left	SB Only	NS Perm	08
Timing	G = *20.0*	G = *15.0*	G =	G =	G = *10.0*	G = *6.0*	G = *24.0*	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y = *5*	Y = *5*	Y =
Duration of Analysis, T = *0.25*						Cycle Length, C = *100.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v		*259*		*396*	*370*	*78*	*95*	*598*		*267*	*501*	*19*
Lane Group Capacity, c		*397*		*416*	*639*	*516*	*260*	*694*		*389*	*1029*	*443*
v/c Ratio, X		*0.65*		*0.95*	*0.58*	*0.15*	*0.37*	*0.86*		*0.69*	*0.49*	*0.04*
Total Green Ratio, g/C		*0.15*		*0.40*	*0.40*	*0.40*	*0.31*	*0.24*		*0.50*	*0.35*	*0.35*
Uniform Delay, d_1		*40.0*		*32.3*	*23.4*	*19.2*	*25.6*	*36.4*		*17.5*	*25.5*	*21.4*
Progression Factor, PF		*1.000*		*1.000*	*0.894*	*0.333*	*1.000*	*1.000*		*1.667*	*0.641*	*0.462*
Delay Calibration, k		*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*
Incremental Delay, d_2		*8.1*		*31.2*	*3.4*	*0.6*	*3.9*	*13.3*		*9.1*	*1.6*	*0.2*
Initial Queue Delay, d_3		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Control Delay		*48.1*		*63.5*	*24.3*	*6.9*	*29.5*	*49.7*		*38.3*	*17.9*	*10.1*
Lane Group LOS		*D*		*E*	*C*	*A*	*C*	*D*		*D*	*B*	*B*
Approach Delay	*48.1*			*41.1*			*46.9*			*24.6*		
Approach LOS	*D*			*D*			*D*			*C*		
Intersection Delay	*38.3*			X_C = *0.89*			Intersection LOS			*D*		

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & S. Broadway*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/18/2011*	Jurisdiction	*City of Yonkers*
Time Period	*AM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Distribution Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*1*	*2*	*0*	*1*	*2*	*1*	*1*	*1*	*0*	*1*	*1*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume, V (vph)	*18*	*624*	*71*	*419*	*817*	*131*	*70*	*159*	*111*	*86*	*73*	*12*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green, e	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type, AT	*3*	*3*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension, UE	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Filtering/Metering, I	*0.594*	*0.594*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Initial Unmet Demand, Q_b	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Ped / Bike / RTOR Volumes	*25*	*0*	*0*	*25*	*0*	*63*	*25*	*0*	*0*	*25*	*0*	*6*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*11.0*	*12.0*		*12.0*	*12.0*	
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	WB Only	EW Perm	EB Only	04	NS Perm	06	07	08
Timing	G = *25.0*	G = *26.0*	G = *5.0*	G =	G = *24.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y = *5*	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis, T = *0.25*						Cycle Length, C = *100.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	*20*	*764*		*460*	*898*	*75*	*77*	*297*		*95*	*87*	
Lane Group Capacity, c	*280*	*1074*		*449*	*1704*	*724*	*252*	*355*		*127*	*378*	
v/c Ratio, X	*0.07*	*0.71*		*1.02*	*0.53*	*0.10*	*0.31*	*0.84*		*0.75*	*0.23*	
Total Green Ratio, g/C	*0.36*	*0.36*		*0.56*	*0.56*	*0.56*	*0.24*	*0.24*		*0.24*	*0.24*	
Uniform Delay, d_1	*21.3*	*27.5*		*27.4*	*13.7*	*10.3*	*31.2*	*36.1*		*35.2*	*30.6*	
Progression Factor, PF	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Delay Calibration, k	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	
Incremental Delay, d_2	*0.3*	*2.4*		*48.9*	*1.2*	*0.3*	*3.1*	*20.3*		*32.7*	*1.4*	
Initial Queue Delay, d_3	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Control Delay	*21.6*	*29.9*		*76.2*	*14.9*	*10.6*	*34.3*	*56.5*		*67.9*	*32.0*	
Lane Group LOS	*C*	*C*		*E*	*B*	*B*	*C*	*E*		*E*	*C*	
Approach Delay	*29.7*			*34.4*			*51.9*			*50.7*		
Approach LOS	*C*			*C*			*D*			*D*		
Intersection Delay	*36.5*			X_C = *0.90*			Intersection LOS			*D*		

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & Riverdale*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/20/2011*	Jurisdiction	*City of Yonkers*
Time Period	*PM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Distribution Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*0*	*2*	*0*	*1*	*1*	*1*	*1*	*2*	*0*	*1*	*2*	*1*
Lane Group		*LTR*		*L*	*T*	*R*	*L*	*TR*		*L*	*T*	*R*
Volume, V (vph)	*15*	*138*	*41*	*268*	*359*	*237*	*100*	*384*	*212*	*401*	*579*	*82*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Extension of Effective Green, e		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Arrival Type, AT		*3*		*4*	*4*	*4*	*3*	*3*		*4*	*5*	*6*
Unit Extension, UE		*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*
Filtering/Metering, I		*1.000*		*0.914*	*0.914*	*0.914*	*1.000*	*1.000*		*0.890*	*0.890*	*0.890*
Initial Unmet Demand, Q_b		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Ped / Bike / RTOR Volumes	*25*	*0*	*24*	*25*	*0*	*169*	*25*	*0*	*75*	*25*	*0*	*54*
Lane Width		*12.0*		*12.0*	*12.0*	*12.0*	*10.0*	*12.0*		*11.0*	*11.0*	*11.0*
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B		*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	EW Perm	02	03	04	NB Only	NS Perm	SB Only	08
Timing	G = *35.0*	G =	G =	G =	G = *10.0*	G = *10.0*	G = *25.0*	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y = *5*	Y =
Duration of Analysis, T = *0.25*						Cycle Length, C = *100.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v		*187*		*295*	*395*	*75*	*110*	*573*		*441*	*636*	*31*
Lane Group Capacity, c		*952*		*349*	*559*	*465*	*210*	*725*		*497*	*1176*	*509*
v/c Ratio, X		*0.20*		*0.85*	*0.71*	*0.16*	*0.52*	*0.79*		*0.89*	*0.54*	*0.06*
Total Green Ratio, g/C		*0.35*		*0.35*	*0.35*	*0.35*	*0.25*	*0.25*		*0.40*	*0.40*	*0.40*
Uniform Delay, d_1		*22.7*		*30.0*	*28.1*	*22.4*	*31.0*	*35.1*		*30.6*	*23.0*	*18.4*
Progression Factor, PF		*1.000*		*0.944*	*0.944*	*0.944*	*1.000*	*1.000*		*0.986*	*0.556*	*0.333*
Delay Calibration, k		*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*
Incremental Delay, d_2		*0.5*		*20.0*	*6.7*	*0.7*	*9.0*	*8.6*		*18.6*	*1.6*	*0.2*
Initial Queue Delay, d_3		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Control Delay		*23.1*		*48.3*	*33.2*	*21.8*	*40.1*	*43.6*		*48.8*	*14.4*	*6.4*
Lane Group LOS		*C*		*D*	*C*	*C*	*D*	*D*		*D*	*B*	*A*
Approach Delay	*23.1*			*37.9*			*43.1*			*27.8*		
Approach LOS	*C*			*D*			*D*			*C*		
Intersection Delay	*34.1*			X_C = *0.84*			Intersection LOS			*C*		

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & S. Broadway*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/20/2011*	Jurisdiction	*City of Yonkers*
Time Period	*PM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Distribution Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*1*	*2*	*0*	*1*	*2*	*1*	*1*	*1*	*0*	*1*	*1*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume, V (vph)	*6*	*663*	*58*	*377*	*691*	*156*	*57*	*175*	*233*	*107*	*104*	*4*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green, e	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type, AT	*4*	*4*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension, UE	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Filtering/Metering, I	*0.585*	*0.585*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Initial Unmet Demand, Q_b	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Ped / Bike / RTOR Volumes	*25*	*0*	*0*	*25*	*0*	*94*	*25*	*0*	*0*	*25*	*0*	*1*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*11.0*	*12.0*		*12.0*	*12.0*	
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	EB Only	EW Perm	WB Only	04	NS Perm	06	07	08
Timing	G = *5.0*	G = *15.0*	G = *25.0*	G =	G = *35.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y = *5*	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis, T = *0.25* — Cycle Length, C = *100.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	*7*	*793*		*414*	*759*	*68*	*63*	*448*		*118*	*117*	
Lane Group Capacity, c	*148*	*749*		*518*	*1369*	*594*	*362*	*505*		*147*	*557*	
v/c Ratio, X	*0.05*	*1.06*		*0.80*	*0.55*	*0.11*	*0.17*	*0.89*		*0.80*	*0.21*	
Total Green Ratio, g/C	*0.25*	*0.25*		*0.45*	*0.45*	*0.45*	*0.35*	*0.35*		*0.35*	*0.35*	
Uniform Delay, d_1	*29.5*	*37.5*		*29.7*	*20.2*	*15.9*	*22.5*	*30.6*		*29.4*	*22.8*	
Progression Factor, PF	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Delay Calibration, k	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	
Incremental Delay, d_2	*0.4*	*42.3*		*12.2*	*1.6*	*0.4*	*1.0*	*20.1*		*35.6*	*0.9*	
Initial Queue Delay, d_3	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Control Delay	*29.8*	*79.8*		*41.9*	*21.8*	*16.3*	*23.5*	*50.7*		*65.0*	*23.7*	
Lane Group LOS	*C*	*E*		*D*	*C*	*B*	*C*	*D*		*E*	*C*	
Approach Delay	*79.3*			*28.2*			*47.4*			*44.4*		
Approach LOS	*E*			*C*			*D*			*D*		
Intersection Delay	*47.8*			X_C = *0.89*			Intersection LOS			*D*		

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & Riverdale*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/17/2011*	Jurisdiction	*City of Yonkers*
Time Period	*AM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*0*	*2*	*0*	*1*	*1*	*1*	*1*	*2*	*0*	*1*	*2*	*1*
Lane Group		*LTR*		*L*	*T*	*R*	*L*	*TR*		*L*	*T*	*R*
Volume, V (vph)	*11*	*197*	*43*	*278*	*353*	*282*	*95*	*506*	*403*	*221*	*474*	*36*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Extension of Effective Green, e		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Arrival Type, AT		*3*		*5*	*5*	*1*	*3*	*3*		*4*	*5*	*6*
Unit Extension, UE		*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*
Filtering/Metering, I		*1.000*		*0.798*	*0.798*	*0.798*	*1.000*	*1.000*		*0.958*	*0.958*	*0.958*
Initial Unmet Demand, Q_b		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Ped / Bike / RTOR Volumes	*25*	*0*	*19*	*25*	*0*	*136*	*25*	*0*	*128*	*25*	*0*	*26*
Lane Width		*12.0*		*12.0*	*12.0*	*12.0*	*10.0*	*12.0*		*11.0*	*11.0*	*11.0*
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B		*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	EW Perm	02	03	04	NB Only	NS Perm	SB Only	08
Timing	G = *35.0*	G =	G =	G =	G = *10.0*	G = *15.0*	G = *20.0*	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y = *5*	Y =
Duration of Analysis, T = *0.25*						Cycle Length, C = *100.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v		*252*		*302*	*384*	*159*	*103*	*849*		*240*	*515*	*11*
Lane Group Capacity, c		*975*		*327*	*559*	*465*	*226*	*857*		*434*	*1176*	*509*
v/c Ratio, X		*0.26*		*0.92*	*0.69*	*0.34*	*0.46*	*0.99*		*0.55*	*0.44*	*0.02*
Total Green Ratio, g/C		*0.35*		*0.35*	*0.35*	*0.35*	*0.30*	*0.30*		*0.40*	*0.40*	*0.40*
Uniform Delay, d_1		*23.2*		*31.2*	*27.8*	*24.0*	*26.8*	*34.9*		*29.1*	*21.8*	*18.2*
Progression Factor, PF		*1.000*		*0.641*	*0.641*	*1.359*	*1.000*	*1.000*		*1.000*	*0.556*	*0.333*
Delay Calibration, k		*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*
Incremental Delay, d_2		*0.6*		*28.9*	*5.4*	*1.6*	*6.5*	*28.6*		*4.8*	*1.1*	*0.1*
Initial Queue Delay, d_3		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Control Delay		*23.9*		*48.9*	*23.3*	*34.2*	*33.2*	*63.4*		*33.9*	*13.3*	*6.1*
Lane Group LOS		*C*		*D*	*C*	*C*	*C*	*E*		*C*	*B*	*A*
Approach Delay	*23.9*			*34.5*			*60.2*			*19.6*		
Approach LOS	*C*			*C*			*E*			*B*		
Intersection Delay	*38.2*			X_C = *0.82*			Intersection LOS			*D*		

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & S. Broadway*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/18/2011*	Jurisdiction	*City of Yonkers*
Time Period	*AM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*1*	*2*	*0*	*1*	*2*	*1*	*1*	*1*	*0*	*1*	*1*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume, V (vph)	*44*	*838*	*95*	*402*	*809*	*111*	*76*	*180*	*148*	*45*	*53*	*13*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green, e	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type, AT	*4*	*4*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension, UE	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Filtering/Metering, I	*0.776*	*0.776*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Initial Unmet Demand, Q_b	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Ped / Bike / RTOR Volumes	*25*	*0*	*0*	*25*	*0*	*79*	*25*	*0*	*0*	*25*	*0*	*6*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*11.0*	*12.0*		*12.0*	*12.0*	
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	EW Perm	WB Only	03	04	NS Perm	06	07	08
Timing	G = *35.0*	G = *23.0*	G =	G =	G = *27.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis, T = *0.25*					Cycle Length, C = *100.0*			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	*48*	*1014*		*437*	*879*	*35*	*83*	*357*		*49*	*66*	
Lane Group Capacity, c	*140*	*1045*		*495*	*1917*	*839*	*290*	*397*		*120*	*422*	
v/c Ratio, X	*0.34*	*0.97*		*0.88*	*0.46*	*0.04*	*0.29*	*0.90*		*0.41*	*0.16*	
Total Green Ratio, g/C	*0.35*	*0.35*		*0.63*	*0.63*	*0.63*	*0.27*	*0.27*		*0.27*	*0.27*	
Uniform Delay, d_1	*24.0*	*32.0*		*31.6*	*9.6*	*7.0*	*28.9*	*35.2*		*29.9*	*27.8*	
Progression Factor, PF	*0.944*	*0.944*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Delay Calibration, k	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	
Incremental Delay, d_2	*5.1*	*18.4*		*19.9*	*0.8*	*0.1*	*2.5*	*25.8*		*10.0*	*0.8*	
Initial Queue Delay, d_3	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Control Delay	*27.8*	*48.6*		*51.5*	*10.4*	*7.1*	*31.3*	*61.0*		*39.9*	*28.6*	
Lane Group LOS	*C*	*D*		*D*	*B*	*A*	*C*	*E*		*D*	*C*	
Approach Delay	*47.6*			*23.6*			*55.4*			*33.4*		
Approach LOS	*D*			*C*			*E*			*C*		
Intersection Delay	*37.3*			X_C = *0.98*			Intersection LOS			*D*		

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & Riverdale*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/17/2011*	Jurisdiction	*City of Yonkers*
Time Period	*PM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*0*	*2*	*0*	*1*	*1*	*1*	*1*	*2*	*0*	*1*	*2*	*1*
Lane Group		*LTR*		*L*	*T*	*R*	*L*	*TR*		*L*	*T*	*R*
Volume, V (vph)	*11*	*278*	*51*	*277*	*378*	*228*	*112*	*396*	*305*	*356*	*597*	*55*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Extension of Effective Green, e		*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*
Arrival Type, AT		*3*		*4*	*4*	*4*	*3*	*3*		*4*	*5*	*6*
Unit Extension, UE		*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*
Filtering/Metering, I		*1.000*		*0.914*	*0.914*	*0.914*	*1.000*	*1.000*		*0.890*	*0.890*	*0.890*
Initial Unmet Demand, Q_b		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Ped / Bike / RTOR Volumes	*25*	*0*	*24*	*25*	*0*	*169*	*25*	*0*	*75*	*25*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*	*12.0*	*10.0*	*12.0*		*11.0*	*11.0*	*11.0*
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B		*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	EW Perm	02	03	04	NB Only	NS Perm	SB Only	08
Timing	G = *40.0*	G =	G =	G =	G = *10.0*	G = *10.0*	G = *20.0*	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y = *5*	Y =
Duration of Analysis, T = *0.25*						Cycle Length, C = *100.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v		*343*		*301*	*411*	*64*	*122*	*680*		*387*	*649*	*60*
Lane Group Capacity, c		*1124*		*331*	*639*	*533*	*214*	*711*		*428*	*1029*	*443*
v/c Ratio, X		*0.31*		*0.91*	*0.64*	*0.12*	*0.57*	*0.96*		*0.90*	*0.63*	*0.14*
Total Green Ratio, g/C		*0.40*		*0.40*	*0.40*	*0.40*	*0.25*	*0.25*		*0.35*	*0.35*	*0.35*
Uniform Delay, d_1		*20.5*		*28.3*	*24.2*	*18.9*	*34.0*	*37.0*		*33.9*	*27.1*	*22.2*
Progression Factor, PF		*1.000*		*0.894*	*0.894*	*0.894*	*1.000*	*1.000*		*1.000*	*0.641*	*0.462*
Delay Calibration, k		*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*
Incremental Delay, d_2		*0.7*		*29.1*	*4.5*	*0.4*	*10.6*	*24.6*		*23.0*	*2.6*	*0.6*
Initial Queue Delay, d_3		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*
Control Delay		*21.2*		*54.4*	*26.2*	*17.3*	*44.6*	*61.6*		*57.0*	*20.0*	*10.8*
Lane Group LOS		*C*		*D*	*C*	*B*	*D*	*E*		*E*	*B*	*B*
Approach Delay	*21.2*			*36.4*			*59.0*			*32.6*		
Approach LOS	*C*			*D*			*E*			*C*		
Intersection Delay	*39.3*			X_C = *0.92*			Intersection LOS			*D*		

HCS+™ DETAILED REPORT

General Information		***Site Information***	
Analyst	*JAG*	Intersection	*Prospect & S. Broadway*
Agency or Co.	*TMA*	Area Type	*CBD or Similar*
Date Performed	*05/17/2011*	Jurisdiction	*City of Yonkers*
Time Period	*PM Peak Hour*	Analysis Year	*Build Condition*
		Project ID	*Sensitivity*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes, N_1	*1*	*2*	*0*	*1*	*2*	*1*	*1*	*1*	*0*	*1*	*1*	*0*
Lane Group	*L*	*TR*		*L*	*T*	*R*	*L*	*TR*		*L*	*TR*	
Volume, V (vph)	*35*	*851*	*96*	*406*	*782*	*191*	*70*	*171*	*250*	*129*	*84*	*17*
% Heavy Vehicles, %HV	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*	*7*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Pretimed (P) or Actuated (A)	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*	*P*
Start-up Lost Time, l_1	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Extension of Effective Green, e	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*		*2.0*	*2.0*	
Arrival Type, AT	*4*	*4*		*3*	*3*	*3*	*3*	*3*		*3*	*3*	
Unit Extension, UE	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*		*3.0*	*3.0*	
Filtering/Metering, I	*0.585*	*0.585*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Initial Unmet Demand, Q_b	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Ped / Bike / RTOR Volumes	*25*	*0*	*0*	*25*	*0*	*94*	*25*	*0*	*0*	*25*	*0*	*1*
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*11.0*	*12.0*		*12.0*	*12.0*	
Parking / Grade / Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking Maneuvers, N_m												
Buses Stopping, N_B	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Min. Time for Pedestrians, G_p	*3.4*			*3.4*			*3.4*			*3.4*		

Phasing	EW Perm	WB Only	03	04	NS Perm	06	07	08
Timing	G = *30.0*	G = *20.0*	G =	G =	G = *35.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis, T = *0.25*					Cycle Length, C = *100.0*			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted Flow Rate, v	*38*	*1029*		*441*	*850*	*105*	*76*	*458*		*140*	*108*	
Lane Group Capacity, c	*106*	*895*		*449*	*1674*	*730*	*365*	*503*		*141*	*544*	
v/c Ratio, X	*0.36*	*1.15*		*0.98*	*0.51*	*0.14*	*0.21*	*0.91*		*0.99*	*0.20*	
Total Green Ratio, g/C	*0.30*	*0.30*		*0.55*	*0.55*	*0.55*	*0.35*	*0.35*		*0.35*	*0.35*	
Uniform Delay, d_1	*27.5*	*35.0*		*35.3*	*14.0*	*11.0*	*22.8*	*31.0*		*32.4*	*22.7*	
Progression Factor, PF	*0.986*	*0.986*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	
Delay Calibration, k	*0.50*	*0.50*		*0.50*	*0.50*	*0.50*	*0.50*	*0.50*		*0.50*	*0.50*	
Incremental Delay, d_2	*5.4*	*75.4*		*38.3*	*1.1*	*0.4*	*1.3*	*23.1*		*73.9*	*0.8*	
Initial Queue Delay, d_3	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*	
Control Delay	*32.5*	*109.9*		*73.6*	*15.2*	*11.4*	*24.1*	*54.1*		*106.3*	*23.5*	
Lane Group LOS	*C*	*F*		*E*	*B*	*B*	*C*	*D*		*F*	*C*	
Approach Delay	*107.2*			*33.3*			*49.9*			*70.3*		
Approach LOS	*F*			*C*			*D*			*E*		
Intersection Delay	*63.2*			X_C = *1.04*			Intersection LOS			*E*		

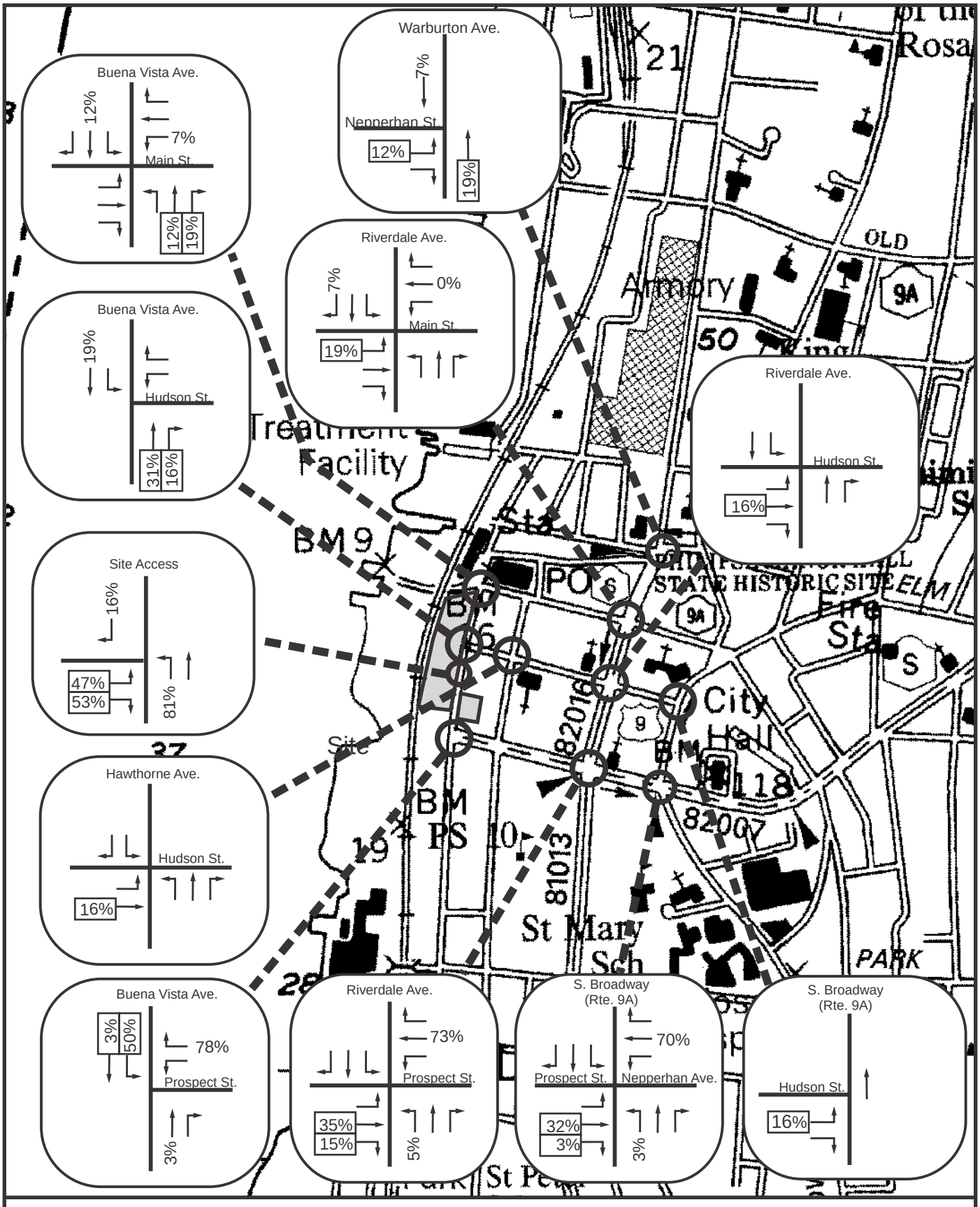

Figure E-1: Sensitivity Arrival/Departure Distribution of Site AM Peak Hour Traffic

Buena Vista Teutonia PUR

City of Yonkers, Westchester County, New York

Base Map: NYS DOT Planimetric Map, Yonkers Quad, 1990

Scale: 1"= 700'

N W E S

LEGEND

- Intersections Studied
- XX% Percent Outbound Traffic
- XX% Percent Inbound Traffic

File 09044 5/22/11
JS:\09044

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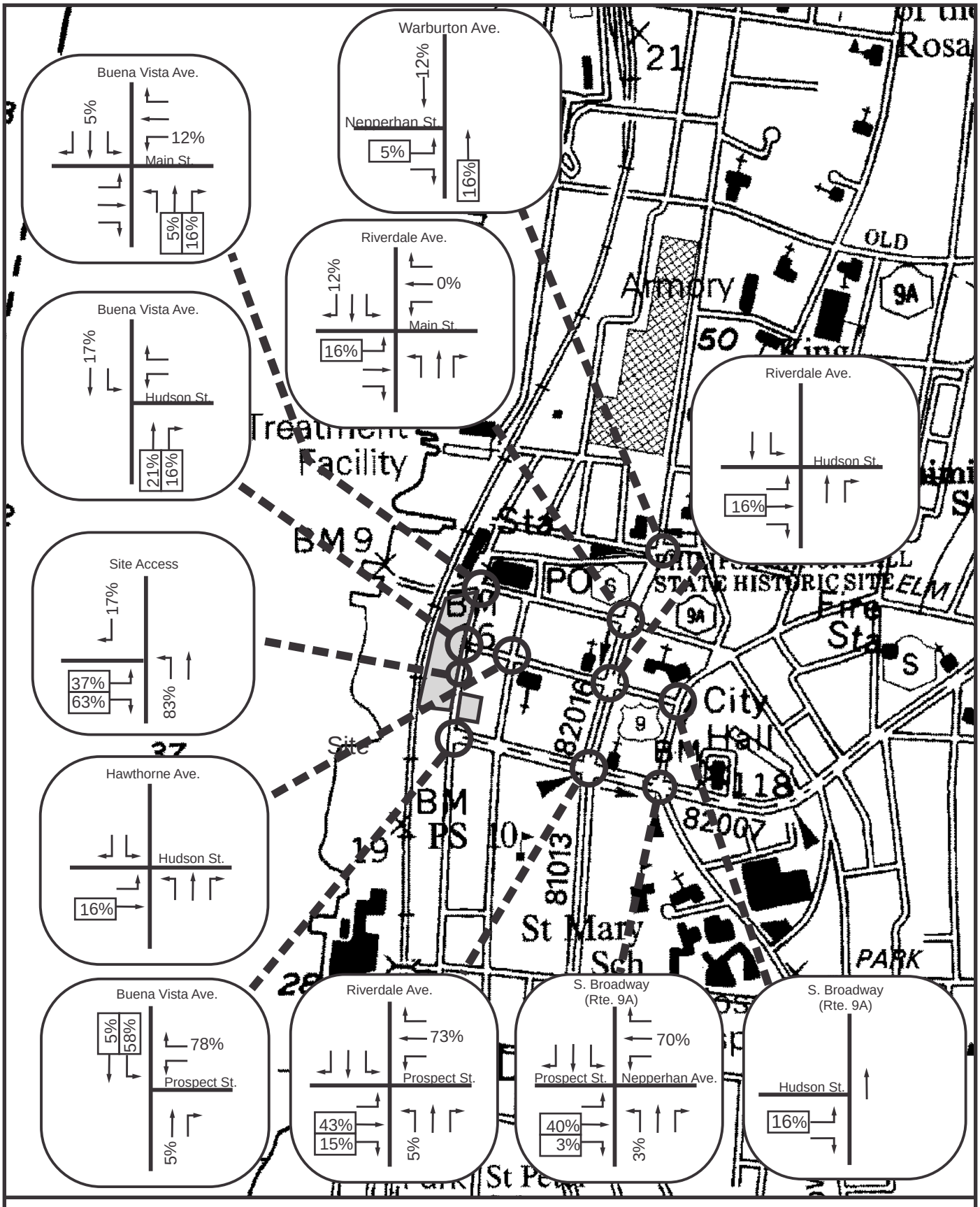

N

W E

S

LEGEND

- Intersections Studied
- XX% Percent Outbound Traffic
- XX% Percent Inbound Traffic

Figure E-2: Sensitivity Arrival/Departure Distribution of Site PM Peak Hour Traffic

Buena Vista Teutonia PUR

City of Yonkers, Westchester County, New York

Base Map: NYS DOT Planimetric Map, Yonkers Quad, 1990

Scale: 1"= 700'

File 09044 5/26/10
JS:\09044

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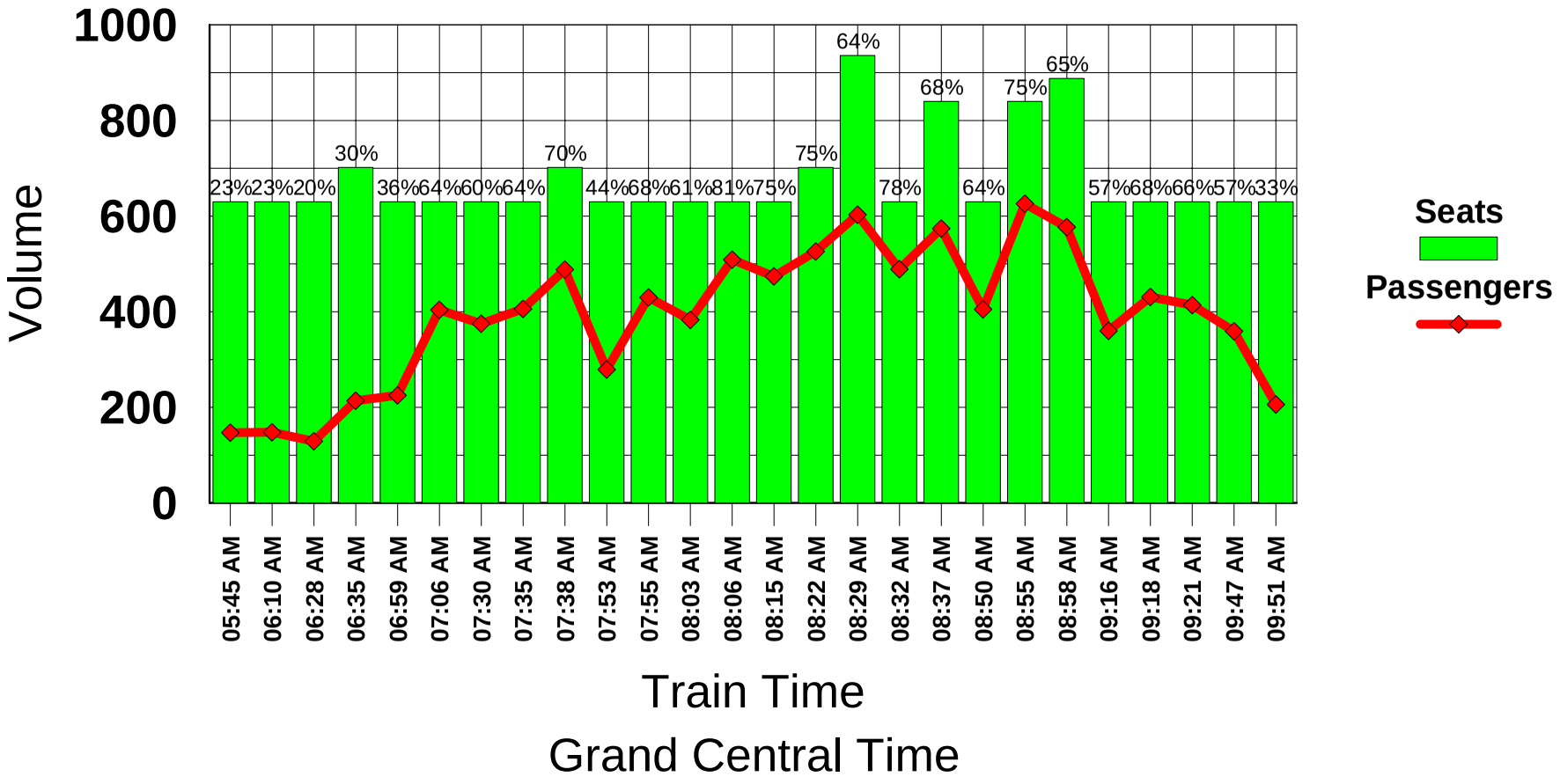
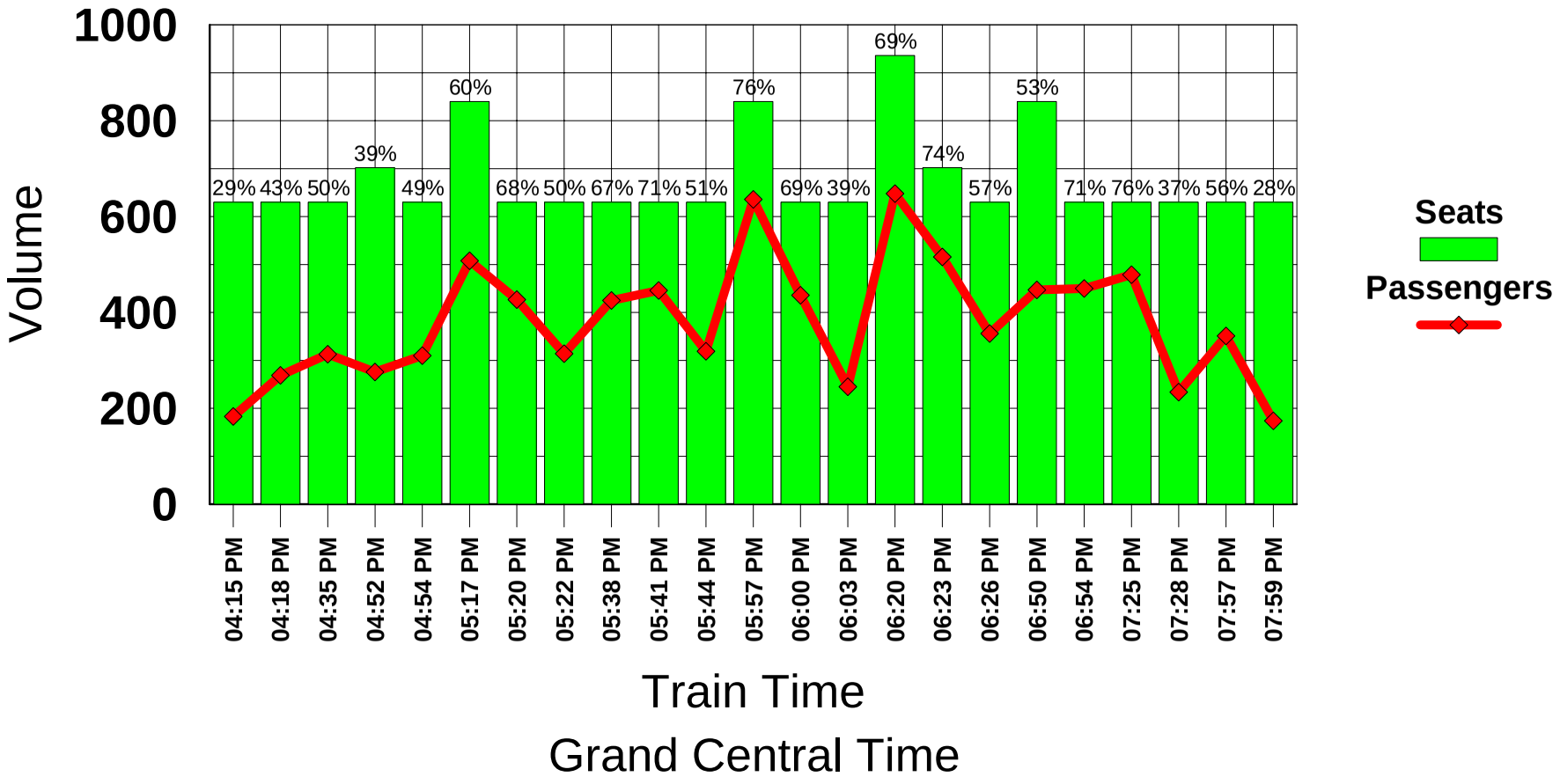
Lower Hudson Line Trains
AM Peak Hour Inbound
Percent Utilization Figure E-3



Source MetroNorth
Grand Central Counts
Spring 2011

Lower Hudson Line Trains
PM Peak Hour Outbound
Percent Utilization Figure E-4



Source MetroNorth
Grand Central Counts
Spring 2011