Verification of Calculated Green Times

T (s) Control Interval	70	**C (s)** Cycle Time	70	**N** Prediction Horizon	5			
S_1 (veh/hr) Saturation Flow of Katipunan South	841	**S_2 (veh/hr)** Saturation Flow of Katipunan North	1510	**S_3 (veh/hr)** Saturation Flow of Aurora West	2017	**S_4 (veh/hr)** Saturation Flow of Aurora East	3200	

Traffic Model $x[k+1] = x[k] + Bu(k) + D(k)$

k Timestep	Predicted Future States				Initial System States			
	x[k+1,0]	x[k+1,1]	x[k+1,2]	x[k+1,3]	x[k,0]	x[k,1]	x[k,2]	x[k,3]
0	29.3933	82.9333	34.3547	91.4444	12	55	19	61
1	46.7867	111.867	46.7094	121.889	29.3933	82.9333	34.3547	91.4444
2	64.18	139.8	62.0642	155.333	46.7867	111.867	46.7094	121.889
3	83.5733	170.733	76.4189	184.778	64.18	139.8	62.0642	155.333
4	99.9667	198.667	90.7736	213.222	83.5733	170.733	76.4189	184.778

B Matrix of Road Network Properties				D Demand Matrix			
-0.2336111111	0	0	0	23	38	26	82
0	-0.4194444444	0	0	23	39	23	82
0	0	-0.5602777778	0	23	38	26	85
0	0	0	-0.8888888889	25	41	25	81
				22	38	25	80

Calculated u(k) Calculated Row Vector of Green Times				Calculated Prediction of Future States Verification of Correct Green Times			
u[k,0]	u[k,1]	u[k,2]	u[k,3]	x[k+1,0]	x[k+1,1]	x[k+1,2]	x[k+1,3]
24	24	19	58	29.3933	82.9333	34.3547	91.4444
24	24	19	58	46.7866	111.8666	46.7094	121.8888
24	24	19	58	64.1800	139.8003	62.0641	155.3334
24	24	19	58	83.5733	170.7333	76.4189	184.7774
24	24	19	58	99.9666	198.6663	90.7736	213.2224