HUNTS POINT WPCP

FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)

Appendix 17.D
Construction Traffic

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Note: Naming conventions of certain materials in this appendix may differ from references made in the EIS. Some typical definitions are listed below.

- No Build = Future No Action
- Build = Future with the Proposed Action under Construction
- Build with Improvements = Future Mitigated Condition with the Proposed Action under Construction

ATR

Hunts Point WPCP—Traffic Backup
08/01/2006

Automatic Traffic Count Location:

1. Tiffany Street **NB**, South of Garrison Avenue

&16D **Weekly Summary Report**

Generated by MSC3000 Version 2.02l Alpha(Nov 30 1995 08:53:01)

Location ..... 1. Tiffany St NB, South of Garrison Ave
Location Code 1
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:32
Recording Start ... 03/31/ 6 12:15
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 124
Channel 1
Recorder Mode ..... Volume

Week of March 26, 2006. Channel: 1 Direction: N

End Time	26 Sun	27 Mon	28 Tue	29 Wed	30 Thu	31 Fri	1 Sat	Wkday Avg.	Daily Avg.
01:00							56		56
02:00							46		46
03:00							19		19
04:00							28		28
05:00							39		39
06:00							38		38
07:00							93		93
08:00							66		66
09:00							74		74
10:00							89		89
11:00							104		104
12:00							102		102
13:00							126		126
14:00						206	117	206	162
15:00						224	130	224	177
16:00						206	110	206	158
17:00						203	65	203	134
18:00						161	72	161	117
19:00						111	82	111	97
20:00						69	64	69	67
21:00						75	44	75	60
22:00						58	37	58	48
23:00						53	48	53	51
24:00						60	40	60	50
Totals						1426	1689	1426	1998

% Avg Wkday	100.0	118.4
% Avg Day	71.4	84.6
AM Peak Hr		11:00
AM Count		104
PM Peak Hr	15:00	15:00
PM Count	224	130

Weekly Summary Report

Location ..... 1. Tiffany St NB, South of Garrison Ave
Location Code 1
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:32
Recording Start ... 03/31/ 6 12:15
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 124
Channel 1
Recorder Mode ..... Volume

Week of April 2, 2006. Channel: 1 Direction: N

End Time	2 Sun	3 Mon	4 Tue	5 Wed	6 Thu	7 Fri	8 Sat	Wkday Avg.	Daily Avg.
01:00	38	53	30	63	50	77	53	55	52
02:00	34	58	6	14	47	40	43	33	35
03:00	0	45	15	0	57	73	47	38	34
04:00	28	48	9	0	95	78	40	46	43
05:00	32	80	7	0	110	119	42	63	56
06:00	22	122	9	0	178	136	47	89	73
07:00	18	183	17	1	228	272	79	140	114
08:00	40	172	13	0	195	243	72	125	105
09:00	75	167	3	0	209	229	104	122	112
10:00	73	190	0	0	183	242	90	123	111
11:00	78	172	60	194	206	232	102	173	149
12:00	69	198	221	242	199	281	96	228	187
13:00	89	215	261	262	224	231	120	239	200
14:00	88	201	244	259	228	199	120	226	191
15:00	79	192	258	203	220	232	101	221	184
16:00	100	212	244	249	256	260	91	244	202
17:00	89	183	274	269	236	223	90	237	195
18:00	73	170	172	173	161	188	73	173	144
19:00	81	100	121	144	139	156	75	132	117
20:00	87	66	105	113	114	114	54	102	93
21:00	78	52	98	80	99	85	48	83	77
22:00	64	31	84	81	79	73	38	70	64
23:00	83	22	57	70	85	81	33	63	62
24:00	56	15	69	54	69	48	42	51	50
Totals	1474	2947	2377	2471	3667	3912	1700	3075	2650
% Avg Wkday	47.9	95.8	77.3	80.4	119.3	127.2	55.3		
% Avg Day	55.6	111.2	89.7	93.3	138.4	147.6	64.2		
AM Peak Hr	11:00	12:00	12:00	12:00	07:00	12:00	09:00		
AM Count	78	198	221	242	228	281	104		
PM Peak Hr	16:00	13:00	17:00	17:00	16:00	16:00	13:00		
PM Count	100	215	274	269	256	260	120		

Weekly Summary Report

Location ..... 1. Tiffany St NB, South of Garrison Ave
Location Code 1
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:32
Recording Start ... 03/31/ 6 12:15
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 124
Channel 1
Recorder Mode ..... Volume

Week of April 9, 2006. Channel: 1 Direction: N

End Time	9 Sun	10 Mon	11 Tue	12 Wed	13 Thu	14 Fri	15 Sat	Wkday Avg.	Daily Avg.
01:00	53	53	69					61	58
02:00	33	57	56					57	49
03:00	35	66	67					67	56
04:00	34	85	69					77	63
05:00	25	110	123					117	86
06:00	33	142	157					150	111
07:00	26	247	214					231	162
08:00	75	198	214					206	162
09:00	78	224	227					226	176
10:00	75	230	205					218	170
11:00	96	258	266					262	207
12:00	94	291	106					199	164
13:00	102	302	1					152	135
14:00	82	279	69					174	143
15:00	74	191	246					219	170
16:00	80	270	251					261	200
17:00	101	303	296					300	233
18:00	67	186						186	127
19:00	86	129						129	108
20:00	85	101						101	93
21:00	62	78						78	70
22:00	123	52						52	88
23:00	107	85						85	96
24:00	95	90						90	93
Totals	1721	4027	2636					3692	3019

% Avg Wkday	46.6	109.1	71.4
% Avg Day	57.0	133.4	87.3
AM Peak Hr	11:00	12:00	11:00
AM Count	96	291	266
PM Peak Hr	22:00	17:00	17:00
PM Count	123	303	296

&16D **Volume Count Report**

Generated by MSC3000 Version 2.02l Alpha(Nov 30 1995 08:53:01)

Location ..... 1. Tiffany St NB, South of Garrison Ave
Location Code 1
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:32
Recording Start ... 03/31/ 6 12:15
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 124
Channel 1
Divide By 2
Summation ..... No
Two-Way ..... No

Friday 03/31/ 6 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
												165	206	224	206	203	161	111	69	75	58	53	60	1591
													69	40	45	55	48	35	28	18	7	13	13	
												43	53	59	48	46	54	21	14	20	24	7	8	
												63	41	60	59	57	37	32	17	16	12	17	19	
												59	43	65	54	45	22	23	10	21	15	16	20	

AM Peak Hour ..... N/A
AM Peak Hour Factor ..... N/A
PM Peak Hour ..... 12:30 to 13:30 (244 vehicles)
PM Peak Hour Factor 88.4%

04/01/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
56	46	19	28	39	38	93	66	74	89	104	102	126	117	130	110	65	72	82	64	44	37	48	40	1689
14	10	6	7	9	8	24	14	10	19	23	20	44	30	41	22	23	17	25	20	11	9	13	11	
20	18	3	11	11	16	21	24	12	19	18	29	24	25	33	27	13	23	21	15	12	9	17	8	
15	8	4	5	8	7	27	19	25	27	24	31	30	31	26	33	17	18	15	13	11	11	8	8	
7	10	6	5	11	7	21	9	27	24	39	22	28	31	30	28	12	14	21	16	10	8	10	13	

AM Peak Hour ..... 10:45 to 11:45 (119 vehicles)
AM Peak Hour Factor 76.3%
PM Peak Hour ..... 13:30 to 14:30 (136 vehicles)
PM Peak Hour Factor 82.9%

Sunday 04/02/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
38	34	0	28	32	22	18	40	75	73	78	69	89	88	79	100	89	73	81	87	78	64	83	56	1474
6	14	0	7	14	2	6	12	9	18	17	18	24	24	28	25	26	16	27	25	22	15	23	16	
13	5	0	6	7	8	1	8	18	16	22	14	31	25	14	26	21	13	11	22	14	7	15	11	
13	10	0	4	7	6	6	9	12	18	25	19	18	24	22	27	17	27	20	26	23	12	23	20	
6	5	0	11	4	6	5	11	36	21	14	18	16	15	15	22	25	17	23	14	19	30	22	9	

AM Peak Hour ..... 08:45 to 09:45 (88 vehicles)
AM Peak Hour Factor 61.1%
PM Peak Hour ..... 15:15 to 16:15 (101 vehicles)
PM Peak Hour Factor 93.5%

04/03/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
53	58	45	48	80	122	183	172	167	190	172	198	215	201	192	212	183	170	100	66	52	31	22	15	2947
20	12	8	14	18	20	47	38	51	41	47	49	54	44	57	49	56	54	19	16	13	9	6	0	
12	19	10	11	18	40	49	33	42	44	26	54	66	62	46	58	32	49	27	16	11	5	4	9	
17	11	8	14	23	26	43	56	30	55	52	37	49	51	46	59	56	31	28	21	13	3	6	1	
4	16	19	9	21	36	44	45	44	50	47	58	46	44	43	46	39	36	26	13	15	14	6	5	

AM Peak Hour ..... 10:30 to 11:30 (202 vehicles)
AM Peak Hour Factor 93.5%
PM Peak Hour ..... 15:15 to 16:15 (219 vehicles)
PM Peak Hour Factor 92.8%

04/04/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
30	6	15	9	7	9	17	13	3	0	60	221	261	244	258	244	274	172	121	105	98	84	57	69	2377
5	0	6	2	0	6	2	5	3	0	0	46	58	69	63	56	58	75	36	39	29	24	24	14	
9	3	2	1	2	1	6	4	0	0	0	58	73	56	52	52	62	30	31	21	23	23	10	18	
13	1	2	6	0	0	8	2	0	0	5	66	87	68	75	64	93	42	18	17	29	16	12	22	
3	2	5	0	5	2	1	2	0	0	55	51	43	51	68	72	61	25	36	28	17	21	11	15	

AM Peak Hour ..... 10:45 to 11:45 (225 vehicles)
AM Peak Hour Factor 85.2%
PM Peak Hour ..... 16:15 to 17:15 (291 vehicles)
PM Peak Hour Factor 78.2%

04/05/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
63	14	0	0	0	0	1	0	0	0	194	242	262	259	203	249	269	173	144	113	80	81	70	54	2471
11	14	0	0	0	0	0	0	0	0	18	54	59	75	65	59	88	47	37	51	18	21	24	11	
14	0	0	0	0	0	1	0	0	0	57	61	58	68	38	56	73	44	39	11	21	20	22	16	
17	0	0	0	0	0	0	0	0	0	51	59	59	65	61	85	57	37	20	19	30	23	15	10	
21	0	0	0	0	0	0	0	0	0	68	68	86	51	39	49	51	45	48	32	11	17	9	17	

AM Peak Hour ..... 10:45 to 11:45 (242 vehicles)
AM Peak Hour Factor 89.0%
PM Peak Hour ..... 15:30 to 16:30 (295 vehicles)
PM Peak Hour Factor 83.8%

04/06/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
50	47	57	95	110	178	228	195	209	183	206	199	224	228	220	256	236	161	139	114	99	79	85	69	3667
16	12	18	16	19	25	47	47	57	51	57	52	35	44	60	62	67	44	42	27	20	18	15	16	
12	7	9	26	29	55	69	40	72	51	53	40	69	68	66	64	55	34	27	28	35	24	14	11	
14	15	20	24	33	44	61	55	38	35	42	61	56	58	53	85	64	48	27	32	20	22	29	22	
8	13	10	29	29	54	51	53	42	46	54	46	64	58	41	45	50	35	43	27	24	15	27	20	

AM Peak Hour ..... 07:30 to 08:30 (237 vehicles)
AM Peak Hour Factor 82.3%
PM Peak Hour ..... 15:15 to 16:15 (261 vehicles)
PM Peak Hour Factor 76.8%

04/07/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
77	40	73	78	119	136	272	243	229	242	232	281	231	199	232	260	223	188	156	114	85	73	81	48	3912
18	18	18	16	36	34	62	54	39	45	44	72	61	60	51	76	64	55	42	24	26	20	32	14	
18	3	13	11	26	33	53	62	63	72	71	64	60	41	70	58	49	58	46	37	22	15	14	9	
18	7	23	26	26	27	87	68	67	61	64	77	67	43	58	72	53	39	43	30	24	24	17	18	
23	12	19	25	31	42	70	59	60	64	53	68	43	55	53	54	57	36	25	23	13	14	18	7	

AM Peak Hour ..... 11:00 to 12:00 (281 vehicles)
AM Peak Hour Factor 91.2%
PM Peak Hour ..... 15:00 to 16:00 (260 vehicles)
PM Peak Hour Factor 85.5%

04/08/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
53	43	47	40	42	47	79	72	104	90	102	96	120	120	101	91	90	73	75	54	48	38	33	42	1700
21	13	8	10	7	9	15	16	26	18	29	30	31	28	24	25	27	19	26	15	13	9	11	10	
7	21	17	8	15	14	25	26	30	21	27	14	27	24	31	25	14	22	16	14	11	5	8	6	
5	5	12	11	12	15	15	15	28	33	22	27	30	38	22	23	27	9	13	10	14	11	10	15	
20	4	10	11	8	9	24	15	20	18	24	25	32	30	24	18	22	23	20	15	10	13	4	11	

AM Peak Hour ..... 09:30 to 10:30 (107 vehicles)
AM Peak Hour Factor 81.1%
PM Peak Hour ..... 13:30 to 14:30 (123 vehicles)
PM Peak Hour Factor 80.9%

Sunday 04/09/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
53	33	35	34	25	33	26	75	78	75	96	94	102	82	74	80	101	67	86	85	62	123	107	95	1721
8	4	7	12	5	12	7	19	19	16	24	31	29	10	22	23	23	14	18	14	21	35	19	28	
14	7	4	8	7	6	2	14	17	25	25	25	23	28	25	15	30	21	21	26	19	40	30	17	
19	10	11	7	7	14	9	19	19	23	29	12	21	23	13	17	20	17	34	19	8	27	20	34	
12	12	13	7	6	1	8	23	23	11	18	26	29	21	14	25	28	15	13	26	14	21	38	16	

AM Peak Hour ..... 10:15 to 11:15 (103 vehicles)
AM Peak Hour Factor 83.1%
PM Peak Hour ..... 21:00 to 22:00 (123 vehicles)
PM Peak Hour Factor 76.9%

Monday 04/10/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
53	57	66	85	110	142	247	198	224	230	258	291	302	279	191	270	303	186	129	101	78	52	85	90	4027
21	10	16	17	22	16	53	52	53	51	62	72	77	74	54	63	99	57	25	19	27	13	30	22	
19	13	15	16	30	33	57	45	61	60	65	78	60	78	37	70	66	49	29	24	20	6	15	15	
4	16	19	28	21	43	55	39	57	46	49	72	95	63	50	73	79	44	44	35	12	16	24	29	
9	18	16	24	37	50	82	62	53	73	82	69	70	64	50	64	59	36	31	23	19	17	16	24	

AM Peak Hour ..... 10:45 to 11:45 (304 vehicles)
AM Peak Hour Factor 92.7%
PM Peak Hour ..... 12:30 to 13:30 (317 vehicles)
PM Peak Hour Factor 83.4%

Tuesday 04/11/06 Channel: 1 Direction: N

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
69	56	67	69	123	157	214 (124)	214	227	205	266	106	1	69	246	251 /168	296								2636
18	14	20	22	32	37	45	44	60	51	61	64	1	0	72	52	77								
22	12	12	12	30	40	51	41	53	63	72	42	0	0	58	49	70								
15	13	16	12	27	37	62	70	59	41	47	0	0	1	59	89	94								
14	17	19	23	34	43	56	59	55	50	86	0	0	68	57	61	55								

AM Peak Hour ..... 10:15 to 11:15 (269 vehicles)
AM Peak Hour Factor 78.2%
PM Peak Hour ..... 15:45 to 16:45 (302 vehicles)
PM Peak Hour Factor 80.3%

Automatic Traffic Count Location:

2. Tiffany Street **SB**, South of Garrison Avenue

&l6D **Weekly Summary Report**

Generated by MSC3000 Version 2.02l Alpha(Nov 30 1995 08:53:01)

Location ..... 2. Tiffany St SB, South of Garrison Ave
Location Code 2
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:33
Recording Start ... 03/31/ 6 12:00
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 94
Channel 1
Recorder Mode ..... Volume

Week of March 26, 2006. Channel: 1 Direction: S

End Time	26 Sun	27 Mon	28 Tue	29 Wed	30 Thu	31 Fri	1 Sat	Wkday Avg.	Daily Avg.
01:00							79		79
02:00							62		62
03:00							52		52
04:00							82		82
05:00							80		80
06:00							78		78
07:00							177		177
08:00							168		168
09:00							201		201
10:00							211		211
11:00							276		276
12:00							272		272
13:00						393	310	393	352
14:00						495	244	495	370
15:00						428	216	428	322
16:00						427	197	427	312
17:00						298	160	298	229
18:00						294	141	294	218
19:00						230	100	230	165
20:00						174	108	174	141
21:00						156	128	156	142
22:00						124	113	124	119
23:00						147	88	147	118
24:00						121	84	121	103
Totals						3287	3627	3287	4326

% Avg Wkday	100.0	110.3
% Avg Day	76.0	83.8
AM Peak Hr		11:00
AM Count		276
PM Peak Hr	14:00	13:00
PM Count	495	310

Weekly Summary Report

Location ..... 2. Tiffany St SB, South of Garrison Ave
Location Code 2
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:33
Recording Start ... 03/31/ 6 12:00
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 94
Channel 1
Recorder Mode ..... Volume

Week of April 2, 2006. Channel: 1 Direction: S

End Time	2 Sun	3 Mon	4 Tue	5 Wed	6 Thu	7 Fri	8 Sat	Wkday Avg.	Daily Avg.
01:00	72	158	115	173	186	175	78	161	137
02:00	73	168	154	122	149	72	63	133	114
03:00	0	193	146	155	156	0	72	130	103
04:00	71	170	172	158	212	0	58	142	120
05:00	88	257	236	229	228	0	64	190	157
06:00	64	327	329	285	302	0	62	249	196
07:00	155	454	446	430	423	0	131	351	291
08:00	117	468	563	461	439	0	177	386	318
09:00	115	477	570	533	471	0	163	410	333
10:00	125	461	430	513	434	0	184	368	307
11:00	144	400	454	342	390	162	222	350	302
12:00	133	402	433	388	351	370	191	389	324
13:00	166	319	386	359	370	348	169	356	302
14:00	146	370	376	392	363	315	195	363	308
15:00	169	364	408	371	366	356	165	373	314
16:00	197	336	345	309	335	360	113	337	285
17:00	161	340	345	297	321	292	89	319	264
18:00	135	253	308	308	300	244	57	283	229
19:00	166	185	249	209	254	191	70	218	189
20:00	181	149	188	204	205	161	76	181	166
21:00	161	150	186	184	187	128	75	167	153
22:00	174	148	166	179	168	138	71	160	149
23:00	188	173	213	204	167	116	64	175	161
24:00	188	132	153	137	172	92	68	137	135
Totals	3189	6854	7371	6942	6949	3520	2677	6327	5357
% Avg Wkday	50.4	108.3	116.5	109.7	109.8	55.6	42.3		
% Avg Day	59.5	127.9	137.6	129.6	129.7	65.7	50.0		
AM Peak Hr	07:00	09:00	09:00	09:00	09:00	12:00	11:00		
AM Count	155	477	570	533	471	370	222		
PM Peak Hr	16:00	14:00	15:00	14:00	13:00	16:00	14:00		
PM Count	197	370	408	392	370	360	195		

Weekly Summary Report

Location ..... 2. Tiffany St SB, South of Garrison Ave
Location Code 2
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:33
Recording Start ... 03/31/ 6 12:00
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 94
Channel 1
Recorder Mode ..... Volume

Week of April 9, 2006. Channel: 1 Direction: S

End Time	9 Sun	10 Mon	11 Tue	12 Wed	13 Thu	14 Fri	15 Sat	Wkday Avg.	Daily Avg.
01:00	82	105	153					129	113
02:00	38	163	159					161	120
03:00	53	154	151					153	119
04:00	44	157	168					163	123
05:00	50	223	219					221	164
06:00	79	281	275					278	212
07:00	80	326	388					357	265
08:00	79	427	407					417	304
09:00	96	493	463					478	351
10:00	122	363	417					390	301
11:00	144	340	416					378	300
12:00	157	398	360					379	305
13:00	182	361	306					334	283
14:00	172	345	374					360	297
15:00	155	323	352					338	277
16:00	156	322	329					326	269
17:00	150	296	302					299	249
18:00	161	284						284	223
19:00	164	188						188	176
20:00	172	178						178	175
21:00	176	166						166	171
22:00	185	160						160	173
23:00	176	152						152	164
24:00	148	134						134	141
Totals	3021	6339	5239					6420	5274
% Avg Wkday	47.1	98.7	81.6						
% Avg Day	57.3	120.2	99.3						
AM Peak Hr	12:00	09:00	09:00						
AM Count	157	493	463						
PM Peak Hr	22:00	13:00	14:00						
PM Count	185	361	374						

&16D **Volume Count Report**

Generated by MSC3000 Version 2.02i Alpha(Nov 30 1995 08:53:01)

Location ..... 2. Tiffany St SB, South of Garrison Ave
Location Code 2
Jurisdiction ..... Bronx
Recorder Set 03/31/06 11:33
Recording Start ... 03/31/ 6 12:00
Recording End 04/11/ 6 17:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 94
Channel 1
Divide By 2
Summation ..... No
Two-Way ..... No

Friday 03/31/ 6 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
												393	495	428	427	298	294	230	174	156	124	147	121	3287
												111	115	121	113	64	78	62	31	37	30	18	38	
												104	120	103	104	97	78	54	48	43	41	45	21	
												98	112	118	103	70	69	51	37	32	25	40	24	
												80	148	86	107	67	69	63	58	44	28	44	38	

AM Peak Hour ..... N/A
AM Peak Hour Factor ..... N/A
PM Peak Hour ..... 13:15 to 14:15 (501 vehicles)
PM Peak Hour Factor 84.6%

04/01/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
79	62	52	82	80	78	177	168	201	211	276	272	310	244	216	197	160	141	100	108	128	113	88	84	3627
27	22	11	13	10	19	33	35	59	35	72	80	84	57	54	59	49	23	15	30	37	26	20	25	
24	12	20	25	35	11	39	25	42	55	65	69	77	81	51	52	33	42	29	25	34	26	24	27	
10	13	10	26	20	18	51	51	55	61	72	61	62	48	61	40	35	37	36	32	35	31	22	10	
18	15	11	18	15	30	54	57	45	60	67	62	87	58	50	46	43	39	20	21	22	30	22	22	

AM Peak Hour ..... 10:30 to 11:30 (288 vehicles)
AM Peak Hour Factor 90.0%
PM Peak Hour ..... 12:00 to 13:00 (310 vehicles)
PM Peak Hour Factor 89.1%

Sunday 04/02/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
72	73	0	71	88	64	155	117	115	125	144	133	166	146	169	197	161	135	166	181	161	174	188	188	3189
20	15	0	10	30	27	56	29	19	42	41	26	32	33	37	59	45	41	40	50	34	53	59	30	
18	15	0	19	20	9	20	40	35	30	48	41	55	43	37	31	39	26	24	37	49	39	44	48	
20	14	0	18	18	11	34	27	27	23	27	36	40	33	35	41	38	36	49	38	39	42	52	58	
14	29	0	24	20	17	45	21	34	30	28	30	39	37	60	66	39	32	53	56	39	40	33	52	

AM Peak Hour ..... 06:00 to 07:00 (155 vehicles)
AM Peak Hour Factor 69.2%
PM Peak Hour ..... 15:00 to 16:00 (197 vehicles)
PM Peak Hour Factor 74.6%

04/03/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
158	168	193	170	257	327	454	468	477	461	400	402	319	370	364	336	340	253	185	149	150	148	173	132	6854
40	28	40	42	61	76	117	140	129	112	103	117	84	87	94	72	93	59	40	47	45	30	50	31	
34	43	59	53	57	68	89	106	107	117	96	91	82	88	93	90	93	70	45	28	42	37	35	35	
49	40	60	33	69	88	109	97	113	123	93	80	72	87	93	94	76	63	46	42	25	35	33	33	
35	57	34	42	70	95	139	125	128	109	108	114	81	108	84	80	78	61	54	32	38	46	55	33	

AM Peak Hour ..... 06:30 to 07:30 (494 vehicles)
AM Peak Hour Factor 88.2%
PM Peak Hour ..... 13:45 to 14:45 (388 vehicles)
PM Peak Hour Factor 89.8%

04/04/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
115	154	146	172	236	329	446	563	570	430	454	433	386	376	408	345	345	308	249	188	186	166	213	153	7371
27	44	32	43	42	68	99	133	154	119	105	138	118	87	108	82	88	83	73	37	66	35	58	50	
27	41	37	54	64	70	109	154	123	95	122	117	80	92	100	90	98	79	69	38	37	34	48	42	
24	38	45	40	62	90	117	139	131	103	120	89	97	93	96	78	81	72	56	61	40	53	42	29	
37	31	32	35	68	101	121	137	162	113	107	89	91	104	104	95	78	74	51	52	43	44	65	32	

AM Peak Hour ..... 07:15 to 08:15 (584 vehicles)
AM Peak Hour Factor 94.8%
PM Peak Hour ..... 13:45 to 14:45 (408 vehicles)
PM Peak Hour Factor 94.4%

04/05/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
173	122	155	158	229	285	430	461	533	513	342	388	359	392	371	309	297	308	209	204	184	179	204	137	6942
38	40	41	37	43	73	89	109	133	152	93	111	93	94	87	66	65	78	59	61	51	42	46	34	
52	33	31	36	57	51	108	120	127	143	69	109	82	100	86	80	84	76	56	42	46	49	71	32	
33	32	46	35	57	60	93	116	153	117	98	83	89	96	104	79	82	79	52	48	55	49	42	40	
50	17	37	50	72	101	140	116	120	101	82	85	95	102	94	84	66	75	42	53	32	39	45	31	

AM Peak Hour ..... 08:30 to 09:30 (568 vehicles)
AM Peak Hour Factor 92.8%
PM Peak Hour ..... 13:00 to 14:00 (392 vehicles)
PM Peak Hour Factor 96.1%

04/06/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
186	149	156	212	228	302	423	439	471	434	390	351	370	363	366	335	321	300	254	205	187	168	167	172	6949
53	38	35	55	51	64	87	106	116	105	122	79	71	64	97	88	92	72	79	43	55	38	33	35	
44	32	38	57	53	72	81	102	140	110	78	90	87	105	101	78	82	69	72	66	49	63	49	35	
40	40	45	47	50	84	109	119	99	119	99	93	103	88	101	76	77	76	46	46	46	32	44	57	
49	39	38	53	74	82	146	112	116	100	91	89	109	106	67	93	70	83	57	50	37	35	41	45	

AM Peak Hour ..... 07:30 to 08:30 (487 vehicles)
AM Peak Hour Factor 87.0%
PM Peak Hour ..... 13:45 to 14:45 (405 vehicles)
PM Peak Hour Factor 95.5%

04/07/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
175	72	0	0	0	0	0	0	0	0	162	370	348	315	356	360	292	244	191	161	128	138	116	92	3520
37	52	0	0	0	0	0	0	0	0	0	89	102	78	85	86	84	68	51	48	29	33	29	26	
48	20	0	0	0	0	0	0	0	0	0	96	80	81	84	88	81	65	55	31	35	30	36	18	
49	0	0	0	0	0	0	0	0	0	48	87	81	74	79	95	56	59	49	51	32	36	29	25	
41	0	0	0	0	0	0	0	0	0	114	98	85	82	108	91	71	52	36	31	32	39	22	23	

AM Peak Hour ..... 10:45 to 11:45 (386 vehicles)
AM Peak Hour Factor 84.6%
PM Peak Hour ..... 14:45 to 15:45 (377 vehicles)
PM Peak Hour Factor 87.3%

04/08/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
78	63	72	58	64	62	131	177	163	184	222	191	169	195	165	113	89	57	70	76	75	71	64	68	2677
32	18	20	11	9	14	25	43	48	49	49	40	46	64	49	36	37	20	23	17	21	23	22	19	
18	18	15	14	18	15	32	37	26	37	52	44	44	51	49	20	23	16	13	11	27	16	7	18	
14	11	25	14	15	18	40	49	33	51	61	49	37	43	31	28	12	9	17	18	18	8	22	18	
14	16	12	19	22	15	34	48	56	47	60	58	42	37	36	29	17	12	17	30	9	24	13	13	

AM Peak Hour ..... 10:00 to 11:00 (222 vehicles)
AM Peak Hour Factor 91.0%
PM Peak Hour ..... 12:45 to 13:45 (200 vehicles)
PM Peak Hour Factor 78.1%

Sunday 04/09/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
82	38	53	44	50	79	80	79	96	122	144	157	182	172	155	156	150	161	164	172	176	185	176	148	3021
25	11	19	4	11	27	17	10	33	29	19	22	52	37	41	39	40	17	40	54	30	36	49	38	
14	9	15	13	17	18	15	19	13	33	36	40	47	33	31	49	33	53	32	53	38	51	49	44	
18	8	10	20	14	14	24	21	34	35	54	44	45	51	45	33	36	48	34	30	49	53	34	31	
25	10	9	7	8	20	24	29	16	25	35	51	38	51	38	35	41	43	58	35	59	45	44	35	

AM Peak Hour ..... 11:00 to 12:00 (157 vehicles)
AM Peak Hour Factor 77.0%
PM Peak Hour ..... 18:30 to 19:30 (199 vehicles)
PM Peak Hour Factor 85.8%

Monday 04/10/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
105	163	154	157	223	281	326	427	493	363	340	398	361	345	323	322	296	284	188	178	166	160	152	134	6339
24	49	30	36	49	69	82	116	113	119	92	106	98	105	76	83	78	71	64	50	32	30	42	31	
24	32	34	32	55	58	72	103	145	80	83	99	83	95	89	74	73	70	37	39	53	47	40	32	
28	47	54	36	58	65	50	97	120	83	88	84	77	68	83	84	77	77	35	44	39	35	34	33	
29	35	36	53	61	89	122	111	115	81	77	109	103	77	75	81	68	66	52	45	42	48	36	38	

AM Peak Hour ..... 08:15 to 09:15 (499 vehicles)
AM Peak Hour Factor 86.0%
PM Peak Hour ..... 12:30 to 13:30 (380 vehicles)
PM Peak Hour Factor 90.5%

Tuesday 04/11/06 Channel: 1 Direction: S

0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Totals
153	159	151	168	219	275	388	407	463	417	416	360	306	374	352	329	302								5239
39	32	36	48	40	67	68	98	116	112	111	79	83	117	103	73	95								
42	43	22	30	56	63	90	99	125	108	89	96	76	90	95	72	74								
38	49	43	34	54	58	115	94	122	112	108	92	78	76	79	96	70								
34	35	50	56	69	87	115	116	100	85	108	93	69	91	75	88	63								

AM Peak Hour ..... 07:45 to 08:45 (479 vehicles)
AM Peak Hour Factor 95.8%
PM Peak Hour ..... 13:00 to 14:00 (374 vehicles)
PM Peak Hour Factor 79.9%

Turning Movement Counts

Hunts Point WPCP—Traffic Backup
08/01/2006

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Hunts Point Avenue
E-W	Bruckner Blvd
Day	Tuesday
Survey Period	

5:30 AM to 8:30 AM

Time Period		NB				SB				EB				WB			
												Service				Service	
		L	L	T	R	L	T	R	R	L	T	T	R	L	T	T	R
Begin	End	To Bruckner	To Service Rd		To Bruckner	To Bruckner		To Bruckner	To Service Rd	To Hunts Point			To Hunts Point	To 66th Street	To West End		To West End
5:30 AM	5:45 AM		1	25	17	22	79	1	2	1	60	42	14	3	278	37	12
5:45 AM	6:00 AM	2	2	18	36	60	107		3	2	72	65	23	3	278	44	13
6:00 AM	6:15 AM	1	1	19	26	61	82		2	2	83	39	25	4	325	69	13
6:15 AM	6:30 AM	5	5	27	38	64	116	1	5	4	86	65	29	4	371	122	12
6:30 AM	6:45 AM	5	4	21	47	73	99	1	8	5	88	46	20	9	403	151	14
6:45 AM	7:00 AM	7	2	20	55	89	127			5	112	75	34	13	435	212	12
7:00 AM	7:15 AM	1		29	28	65	81		2	4	135	52	18	8	342	288	20
7:15 AM	7:30 AM	7	2	88	44	120	66		6	4	148	63	26	2	248	492	44
7:30 AM	7:45 AM	5	7	76	41	90	60	1	2	3	161	67	19	2	292	449	48
7:45 AM	8:00 AM	3	6	81	53	120	90	1	9	4	187	61	30	2	335	403	76
8:00 AM	8:15 AM	3	4	43	39	113	78		12	4	213	70	27	3	319	341	42
8:15 AM	8:30 AM	2	4	49	56	111	59	2	15	4	213	97	19	4	302	352	47

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Bruckner Blvd
Day	Tuesday
Survey Period	

5:30 AM to 8:30 AM

Time Period		NB					SB					EB				WB			
														Service				Service	
		L	L	T	R	R	L	L	T	R	R	L	T	T	R	L	T	T	R
Begin	End	To Bruckner	To Service Rd		To Bruckner	To Service Rd	To Bruckner	To Service Rd		To Bruckner	To Service Rd	To Hunts Point			To Hunts Point	To 66th Street	To West End		To West End
5:30 AM -	5:45 AM																		
5:45 AM -	6:00 AM	3		0	2	18	5	3	10		1		31	28	2	78	107	17	
6:00 AM -	6:15 AM	2		2	3	17	5	1	6	2	3		30	30	2	59	76	49	6
6:15 AM -	6:30 AM	4	1	3	8	25	8	1	4	1			42	29	3	59	103	95	6
6:30 AM -	6:45 AM	6	2	3	8	19	6	1	7				49	32	1	89	110	129	11
6:45 AM -	7:00 AM	7	1	7	6	25	6	1	6		1		56	45	3	120	125	148	21
7:00 AM -	7:15 AM	5	1	6	6	21	7	1	7	3	5		70	25	3	108	136	195	11
7:15 AM -	7:30 AM	3	1	10	1	13	4	2	14	2	2		87	45	2	101	199	246	16
7:30 AM -	7:45 AM	6	1	12	2	20	13	2	16	3	2		89	39		143	223	227	39
7:45 AM -	8:00 AM	4		7	2	16	12	1	25		2		87	39		131	199	262	36
8:00 AM -	8:15 AM	9	1	10	3	27	15	2	22	5	3		110	46	3	134	237	233	33
8:15 AM -	8:30 AM	5		12	2	19	14	1	20	2	5		116	63	2	129	224	225	28

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Legett Avenue
E-W	Garrison Avenue
Survey Period	

5:30 AM to 8:30 AM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
5:30 AM	-	5:45 AM		90	5	7	128	1		2	0	1	1	4
5:45 AM	-	6:00 AM		135	1	5	156			1		2		2
6:00 AM	-	6:15 AM		142	2	7	155					2		2
6:15 AM	-	6:30 AM		141	4	5	173							2
6:30 AM	-	6:45 AM		147	2	5	157	1				1		1
6:45 AM	-	7:00 AM	1	122	3	11	163	1	1	1		2		1
7:00 AM	-	7:15 AM		158	4	5	155	1	1	1		3	1	7
7:15 AM	-	7:30 AM		125	3	9	128					5	1	4
7:30 AM	-	7:45 AM		103	4	14	151		1	2		5		4
7:45 AM	-	8:00 AM		121	8	13	156					5	2	7
8:00 AM	-	8:15 AM		139	13	10	167		1			4	1	9
8:15 AM	-	8:30 AM		127	6	6	124					3	1	10

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Hunts Point Avenue
E-W	Garrison Avenue
Survey Period	

5:30 AM to 8:30 AM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
5:30 AM	-	5:45 AM	3	20	1	27	61	1	2	14	3	6	4	9
5:45 AM	-	6:00 AM	1	27	3	30	95	3	3	17	10	2	3	12
6:00 AM	-	6:15 AM		36	3	27	82	1	5	25	5	1	1	10
6:15 AM	-	6:30 AM	3	51	4	35	110	8	7	31	5	1	2	15
6:30 AM	-	6:45 AM	2	50	9	33	88	4	8	36	7	1	1	19
6:45 AM	-	7:00 AM	4	55	12	34	114	2	5	28	12	2	6	13
7:00 AM	-	7:15 AM	4	54	10	22	80	5	12	34	7	1	4	24
7:15 AM	-	7:30 AM	2	61	6	17	66	7	6	20	3		5	23
7:30 AM	-	7:45 AM	6	65	6	16	66	2	3	32	11	3	9	14
7:45 AM	-	8:00 AM	3	73	8	29	84	2	6	44	22	2	10	20
8:00 AM	-	8:15 AM	4	70	10	22	86	4	7	31	18	3	10	18
8:15 AM	-	8:30 AM	5	79	7	21	57	1	7	25	12	1	11	19

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Lafayette Avenue
Survey Period	

5:30 AM to 8:30 AM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
5:30 AM	-	5:45 AM	4	20	5	6	42			10	1	25	7	
5:45 AM	-	6:00 AM	2	20	6	3	68		1	8	1	33	5	2
6:00 AM	-	6:15 AM	3	24	5	4	50		1	8	1	37	12	3
6:15 AM	-	6:30 AM	3	33	8	5	55	5	2	12	1	37	20	3
6:30 AM	-	6:45 AM	6	30	6	8	94	3	1	12	3	34	9	5
6:45 AM	-	7:00 AM	6	34	6	10	86		2	10	2	41	28	4
7:00 AM	-	7:15 AM	5	21	6	10	70		2	22	4	26	18	2
7:15 AM	-	7:30 AM	5	21	2	7	73		2	28	4	30	19	
7:30 AM	-	7:45 AM	3	33	6	9	76		3	17	5	21	28	4
7:45 AM	-	8:00 AM	2	26	4	11	97	2	3	24	4	24	25	2
8:00 AM	-	8:15 AM	5	34	1	13	88	1		16	2	19	26	4
8:15 AM	-	8:30 AM	2	25	4	16	83	2	3	22	4	22	37	11

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Randall Avenue
Day	Tuesday
Survey Period	

5:30 AM to 8:30 AM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
5:30 AM	-	5:45 AM	12	25	1	22	28	1		47	8	1	49	11
5:45 AM	-	6:00 AM	22	21	1	30	48		2	92	15		64	12
6:00 AM	-	6:15 AM	22	26	1	33	47		1	62	18		67	12
6:15 AM	-	6:30 AM	22	36		19	45	2	2	87	18		82	16
6:30 AM	-	6:45 AM	22	34	1	30	70	2	2	67	12	1	62	10
6:45 AM	-	7:00 AM	13	42	1	31	66	3	4	69	17	3	69	18
7:00 AM	-	7:15 AM	27	18		21	59	3	3	69	8	1	71	16
7:15 AM	-	7:30 AM	23	31	2	29	59	11		65	11		66	13
7:30 AM	-	7:45 AM	14	19		31	41	7	4	67	14	3	60	11
7:45 AM	-	8:00 AM	20	28	3	39	49	5	2	87	13	1	75	16
8:00 AM	-	8:15 AM	25	34		25	47	3	8	56	14		55	16
8:15 AM	-	8:30 AM	13	26	1	30	49	4	7	48	13		67	12

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Garrison Avenue
Day	Tuesday
Survey Period	

5:30 AM to 8:30 AM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
5:30 AM	-	5:45 AM		18	2	2	42	4	6	7	1	3	12	3
5:45 AM	-	6:00 AM		18	2	4	62	5	6	4		6	11	1
6:00 AM	-	6:15 AM		23		8	49	5	1	8		6	13	1
6:15 AM	-	6:30 AM	1	29	3	5	51	7	5	15	1	15	19	5
6:30 AM	-	6:45 AM	3	25	3	1	82	18	6	12	5	16	29	6
6:45 AM	-	7:00 AM	1	28	3	5	79	12	7	17	1	8	28	8
7:00 AM	-	7:15 AM	1	24	2	5	78	13	3	9	1	10	25	10
7:15 AM	-	7:30 AM		20	4	3	79	20	1	8		12	22	3
7:30 AM	-	7:45 AM	2	29	5	5	76	24	3	18	1	7	18	8
7:45 AM	-	8:00 AM	1	24	1	6	105	18	8	19	1	8	25	3
8:00 AM	-	8:15 AM		34	3	6	99	16	8	16		8	20	1
8:15 AM	-	8:30 AM	1	21	5	3	88	13	4	17	1	15	30	4

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Hunts Point Avenue
E-W	Bruckner Blvd
Day	Tuesday
Survey Period	

2:00 PM to 5:00 PM

Time Period			NB				SB				EB				WB			
													Service				Service	
		L	L	T	R	L	T	R	R	L	T	T	R	L	T	T	R
Begin	End	To Bruckner	To Service Rd		To Bruckner	To Bruckner		To Bruckner	To Service Rd	To Hunts Point			To Hunts Point	To 66th Street	To West End		To West End
2:00 PM	2:15 PM	5	7	60	66	106	63	3	4	0	162	110	14	3	240	133	8
2:15 PM	2:30 PM	7	7	58	76	115	71	3	8	1	173	105	13	1	240	151	13
2:30 PM	2:45 PM	5	6	68	40	119	51		6	2	184	96	13	3	248	171	15
2:45 PM	3:00 PM	3	2	53	70	141	46	1	6	4	231	110	18	4	256	192	18
3:00 PM	3:15 PM	8	4	49	40	103	32		2	6	278	125	11	5	267	176	17
3:15 PM	3:30 PM	11	8	78	75	129	54		3	6	258	139	25	5	278	167	24
3:30 PM	3:45 PM	3	6	80	60	113	52		1	6	238	185	18	4	284	218	21
3:45 PM	4:00 PM	9	9	72	70	130	45	1	5	10	288	217	16	3	289	192	17
4:00 PM	4:15 PM	7	5	76	45	121	47	1	6	14	338	238	17	4	275	239	18
4:15 PM	4:30 PM	7	7	82	59	133	54			16	335	275	25	4	260	214	32
4:30 PM	4:45 PM	2	2	129	62	123	37		3	17	331	261	16	3	243	211	19
4:45 PM	5:00 PM	6	8	134	59	121	38		4	17	331	301	15	2	226	213	18

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Bruckner Blvd
Day	Tuesday
Survey Period	

2:00 PM to 5:00 PM

Time Period			NB					SB					EB				WB			
															Service					Service
		L	L	T	R	R	L	L	T	R	R	L	T	T	R	L	T	T	R
Begin	End	To Bruckner	To Service Rd		To Bruckner	To Service Rd	To Bruckner	To Service Rd		To Bruckner	To Service Rd	To Hunts Point			To Hunts Point	To 66th Street	To West End		To West End
2:00 PM	2:15 PM	5	3	7	6	28	11	5	15	1	7		101	71	3	72	98	99	11
2:15 PM	2:30 PM	4	1	12	5	12	6	6	8	4	1		105	77	2	73	97	115	24
2:30 PM	2:45 PM	5	2	11	11	21	9	4	12	4	3		139	62	6	61	84	114	18
2:45 PM	3:00 PM	3	2	10	7	15	18	8	8	1	6		133	93	0	59	91	138	13
3:00 PM	3:15 PM	5	2	19	10	19	22	3	17	2	3		172	98	1	41	124	131	29
3:15 PM	3:30 PM	2	3	11	4	22	28	3	17	1	8		180	103	4	59	115	123	23
3:30 PM	3:45 PM	1	3	9	10	29	30	4	27	2	5		186	169	2	60	117	148	27
3:45 PM	4:00 PM	3		14	10	16	20	9	36	2	7		226	163	2	58	114	132	23
4:00 PM	4:15 PM	5		13	6	38	28	14	17	4	5		306	237	3	47	104	153	28
4:15 PM	4:30 PM	1	1	15	8	27	18	7	21	3	3		269	201	1	61	106	130	28
4:30 PM	4:45 PM	4	1	21	10	37	21	2	21		6		304	283	3	31	86	149	21
4:45 PM	5:00 PM	1	3	23	6	9	14	12	12	2	7		233	235	7	48	75	140	23

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Legett Avenue
E-W	Garrison Avenue
Survey Period	

2:00 AM to 8:30 AM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
2:00 AM	-	2:15 AM		137	6	18	142					2		9
2:15 AM	-	2:30 AM		121	4	12	110					5		10
2:30 AM	-	2:45 AM		126	3	11	126		1			6		14
2:45 AM	-	3:00 AM		109	3	13	117	2				3		8
3:00 AM	-	3:15 AM		128	4	18	133					6		4
3:15 AM	-	3:30 AM		113	9	17	119					2		7
3:30 AM	-	3:45 AM		136	18	12	131					7		11
3:45 AM	-	4:00 AM		92	10	12	118					4		8
4:00 AM	-	4:15 AM		113	13	9	113	1		1	1	2		12
4:15 AM	-	4:30 AM		82	5	14	112		1	1		1		13
4:30 AM	-	4:45 AM		105	13	15	109	1	3	1		8	1	16
4:45 AM	-	5:00 AM		92	3	11	74		1	1		5		12

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Hunts Point Avenue
E-W	Garrison Avenue
Survey Period	

2:00 PM to 5:00 PM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
2:00 PM	-	2:15 PM	11	68	11	18	56	2	5	50	22		19	21
2:15 PM	-	2:30 PM	11	105	14	12	67	6	12	39	14	1	5	26
2:30 PM	-	2:45 PM	14	70	12	13	59	1	5	34	18	4	14	25
2:45 PM	-	3:00 PM	8	88	12	10	52	1	1	21	11	2	12	23
3:00 PM	-	3:15 PM	6	87	10	10	41	2	10	28	15	2	10	21
3:15 PM	-	3:30 PM	8	96	22	13	53	1	8	51	14	2	9	31
3:30 PM	-	3:45 PM	11	103	18	13	59	5	11	35	14	3	10	26
3:45 PM	-	4:00 PM	10	89	17	8	45	3	16	29	19		11	25
4:00 PM	-	4:15 PM	10	83	15	16	51	3	12	42	13	1	14	22
4:15 PM	-	4:30 PM	9	72	11	25	52	4	15	39	19	2	17	22
4:30 PM	-	4:45 PM	9	85	21	16	44	2	18	38	15	1	15	25
4:45 PM	-	5:00 PM	9	81	13	10	43		15	53	17	1	8	27

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Lafayette Avenue
Survey Period	

2:00 PM to 5:00 PM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
2:00 PM	-	2:15 PM	6	33	13	8	60	1	2	20	3	22	38	10
2:15 PM	-	2:30 PM	3	28	16	8	63	2	1	15	4	21	28	12
2:30 PM	-	2:45 PM	4	36	13	8	49	1		18	7	22	28	4
2:45 PM	-	3:00 PM	3	32	15	6	49			12	5	12	23	7
3:00 PM	-	3:15 PM	3	27	16	8	50	3	1	24	3	25	26	11
3:15 PM	-	3:30 PM	4	23	11	12	41	1		16	2	20	19	9
3:30 PM	-	3:45 PM	4	44	21	16	60	3		22	3	20	23	11
3:45 PM	-	4:00 PM	4	30	23	13	63	2	5	25	3	15	21	7
4:00 PM	-	4:15 PM	3	39	23	9	58	2	1	25	3	26	31	10
4:15 PM	-	4:30 PM	2	38	15	16	47	2		15	1	23	30	8
4:30 PM	-	4:45 PM	2	43	21	7	54	1		23	6	25	32	7
4:45 PM	-	5:00 PM	5	28	20	6	45		2	24	6	29	21	11

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Randall Avenue
Day	Tuesday
Survey Period	

2:00 PM to 5:00 PM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
2:00 PM	-	2:15 PM	17	27	1	26	40	4	4	63	15	2	50	22
2:15 PM	-	2:30 PM	17	28	4	39	35	3	5	59	10	4	69	12
2:30 PM	-	2:45 PM	21	31	2	31	29	8	4	48	12		72	17
2:45 PM	-	3:00 PM	16	18	2	30	30	4	8	54	9		56	7
3:00 PM	-	3:15 PM	13	29	2	33	33	1	1	60	10	3	57	15
3:15 PM	-	3:30 PM	15	34	2	30	28	1	2	52	11	2	58	11
3:30 PM	-	3:45 PM	25	32	6	25	47	7	4	58	11	4	60	20
3:45 PM	-	4:00 PM	14	25	3	16	42	2	1	55	16	2	65	16
4:00 PM	-	4:15 PM	18	34	3	38	35	8	4	55	13	3	39	14
4:15 PM	-	4:30 PM	9	30	1	34	31	6	2	70	12	2	46	23
4:30 PM	-	4:45 PM	12	26		30	29	1	3	52	11	2	38	18
4:45 PM	-	5:00 PM	23	22	1	24	23	3	4	52	7	3	51	17

Project Name	Hunts Point
Survey Date	4/11/2006
N-S	Tiffany Street
E-W	Garrison Avenue
Day	Tuesday
Survey Period	

2:00 PM to 5:00 PM

Time Period			NB			SB			EB			WB		
Begin		End	L	T	R	L	T	R	L	T	R	L	T	R
2:00 PM	-	2:15 PM	1	32	11	6	57	6	6	24	2	11	29	16
2:15 PM	-	2:30 PM		23	10	5	52	11	2	21	4	16	26	10
2:30 PM	-	2:45 PM	1	32	9	5	46	9	5	25	1	10	25	9
2:45 PM	-	3:00 PM		30	7	1	48	11	2	12		8	28	6
3:00 PM	-	3:15 PM		34	9	7	48	8	6	17		7	23	9
3:15 PM	-	3:30 PM	1	30	4	6	41	8	6	23		13	16	9
3:30 PM	-	3:45 PM	2	35	11	5	63	9	13	22	2	13	27	7
3:45 PM	-	4:00 PM	1	31	6	9	66	15	4	22	2	9	18	9
4:00 PM	-	4:15 PM		39	5	6	52	3	6	34		18	26	10
4:15 PM	-	4:30 PM		35	13	9	53	10	6	14	1	7	21	14
4:30 PM	-	4:45 PM	1	38	10	4	46	8	12	29		16	37	24
4:45 PM	-	5:00 PM	2	27	7	9	42	7	7	32	2	6	23	7

Vehicle Classification Counts

Hunts Point WPCP—Traffic Backup
08/01/2006

Project Name Hunts Point WPCP
N-S Hunts Point Avenue
E-W Bruckner Blvd
Peak Period AM
Survey Date 11-Apr-06

Time Period					Heavy Vehicles					
	Auto	SUV	Taxi	Light Truck	Medium Truck	Heavy Truck	Jitney Bus	Full size Bus	Small School Bus	Full size School Bus
	W-Servcie									
5:30 AM - 5:45 AM	25	12	1	5	1	1	0	1	0	0
7:00 AM - 7:15 AM	154	81	1	14	2	3	1	3	7	6
PHV	8									
	W-Main									
5:45 AM - 6:00 AM	173	75	0	33	18	28	1	0	0	0
7:15 AM - 7:30 AM	245	99	1	60	25	20	1	1	2	2
PHV	13									
	E-Main									
6:00 AM - 6:15 AM	33	15	0	15	7	2	0	0	0	0
7:30 AM - 7:45 AM	83	33	0	21	1	10	0	0	1	3
PHV	11									
	E-Service									
6:15 AM - 6:30 AM	35	12	0	17	13	22	1	0	1	1
7:45 AM - 8:00 AM	37	18	0	14	10	15	0	0	2	1
PHV	30									

Project Name Hunts Point WPCP
N-S Hunts Point Avenue
E-W Bruckner Blvd
Peak Period PM
Survey Date 11-Apr-06

Time Period					Heavy Vehicles					
	Auto	SUV	Taxi	Light Truck	Medium Truck	Heavy Truck	Jitney Bus	Full size Bus	Small School Bus	Full size School Bus
	W-Servcie									
2:00 PM - 2:15 PM	72	21	0	24	5	0	1	1	2	0
3:30 PM - 3:45 PM	127	44	0	31	9	1	0	2	6	9
PHV	10									
	W-Main									
2:15 PM - 2:30 PM	108	33	0	38	29	21	1	2	3	0
3:45 PM - 4:00 PM	151	41	0	39	32	22	0	0	8	2
PHV	23									
	E-Main									
2:30 PM - 2:45 PM	115	29	1	33	8	7	1	0	1	1
4:00 PM - 4:15 PM	215	87	3	39	32	22	0	0	8	2
PHV	14									
	E-Service									
2:45 PM - 3:00 PM	66	18	0	23	6	6	1	0	1	2
4:15 PM - 4:30 PM	156	61	1	29	10	17	1	0	2	1
PHV	10									

Project Name Hunts Point WPCP
N-S Hunts Point Avenue
E-W Garrison Avenue
Peak Period AM
Survey Date 11-Apr-06

Time Period					Heavy Vehicles					
	Auto	SUV	Taxi	Light Truck	Medium Truck	Heavy Truck	Jitney Bus	Full size Bus	Small School Bus	Full size School Bus
	North									
6:30 AM - 6:45 AM	38	7	0	14	6	0	0	1	9	5
8:00 AM - 8:15 AM	59	16	0	17	1	0	1	2	2	1
PHV	16									
	West									
6:30 AM - 6:45 AM	14	5	0	3	3	0	0	1	5	3
8:00 AM - 8:15 AM	22	8	1	5	1	0	2	2	0	0
PHV	23									
	South									
6:45 AM - 7:00 AM	102	43	0	24	3	0	0	3	0	2
8:15 AM - 8:30 AM	41	17	0	12	2	0	0	1	3	8
PHV	8									
	East									
6:45 AM - 7:00 AM	18	7	0	10	3	0	1	0	6	2
8:15 AM - 8:30 AM	29	9	0	8	5	0	0	0	0	1
PHV	18									

Project Name Hunts Point WPCP
N-S Hunts Point Avenue
E-W Garrison Avenue
Peak Period PM
Survey Date 4/11/06

Time Period					Heavy Vehicles					
	Auto	SUV	Taxi	Light Truck	Medium Truck	Heavy Truck	Jitney Bus	Full size Bus	Small School Bus	Full size School Bus
					North					
3:00 PM - 3:15 PM	55	21	0	16	5	0	0	1	0	3
4:30 PM - 4:45 PM	93	22	0	20	2	0	0	1	1	0
PHV						6				
					West					
3:00 PM - 3:15 PM	17	8	0	5	0	0	1	0	0	0
4:30 PM - 4:45 PM	29	8	0	3	1	1	0	0	1	0
PHV						6				
					South					
3:15 PM - 3:30 PM	32	16	0	10	1	2	0	6	3	5
4:45 PM - 5:00 PM	35	8	0	5	3	1	0	5	2	5
PHV						24				
					East					
3:15 PM - 3:30 PM	38	13	0	16	3	2	0	0	2	1
4:45 PM - 5:00 PM	55	18	1	10	0	1	0	0	0	0
PHV						6				

Project Name Hunts Point WPCP
N-S Tiffany Street
Peak Period AM
E-W Randall Avenue
Survey Date 11-Apr-06

Time Period						Heavy Vehicles					
	Auto	SUV	Taxi	Light Truck	Medium Truck	Heavy Truck	Jitney Bus	Full size Bus	Small School Bus	Full size School Bus
						North					
6:00 AM - 6:15 AM	7	1	0	1	12	16	0	0	0	0
7:00 AM - 7:15 AM	12	2	0	15	12	13	0	0	1	2
8:00 AM 8:15 AM	16	5	0	9	16	18	0	0	0	0
PHV						57				
						West					
6:00 AM - 6:15 AM	21	2	0	7	24	12	1	0	0	0
7:00 AM - 7:15 AM	35	10	0	20	46	8	0	0	1	8
8:00 AM 8:15 AM	24	6	0	12	29	15	0	1	0	0
PHV						52				
						South					
6:15 AM - 6:30 AM	29	13	0	3	9	21	0	0	2	0
7:15 AM - 7:30 AM	47	18	0	7	21	12	0	0	1	1
8:15 AM - 8:30 AM	21	20	0	6	12	21	0	0	2	3
PHV						39				
						East					
6:15 AM - 6:30 AM	33	17	0	6	33	14	0	0	0	0
7:15 AM - 7:30 AM	28	15	0	9	30	12	0	0	1	1
8:15 AM - 8:30 AM	24	12	0	8	14	13	0	0	0	2
PHV						44				

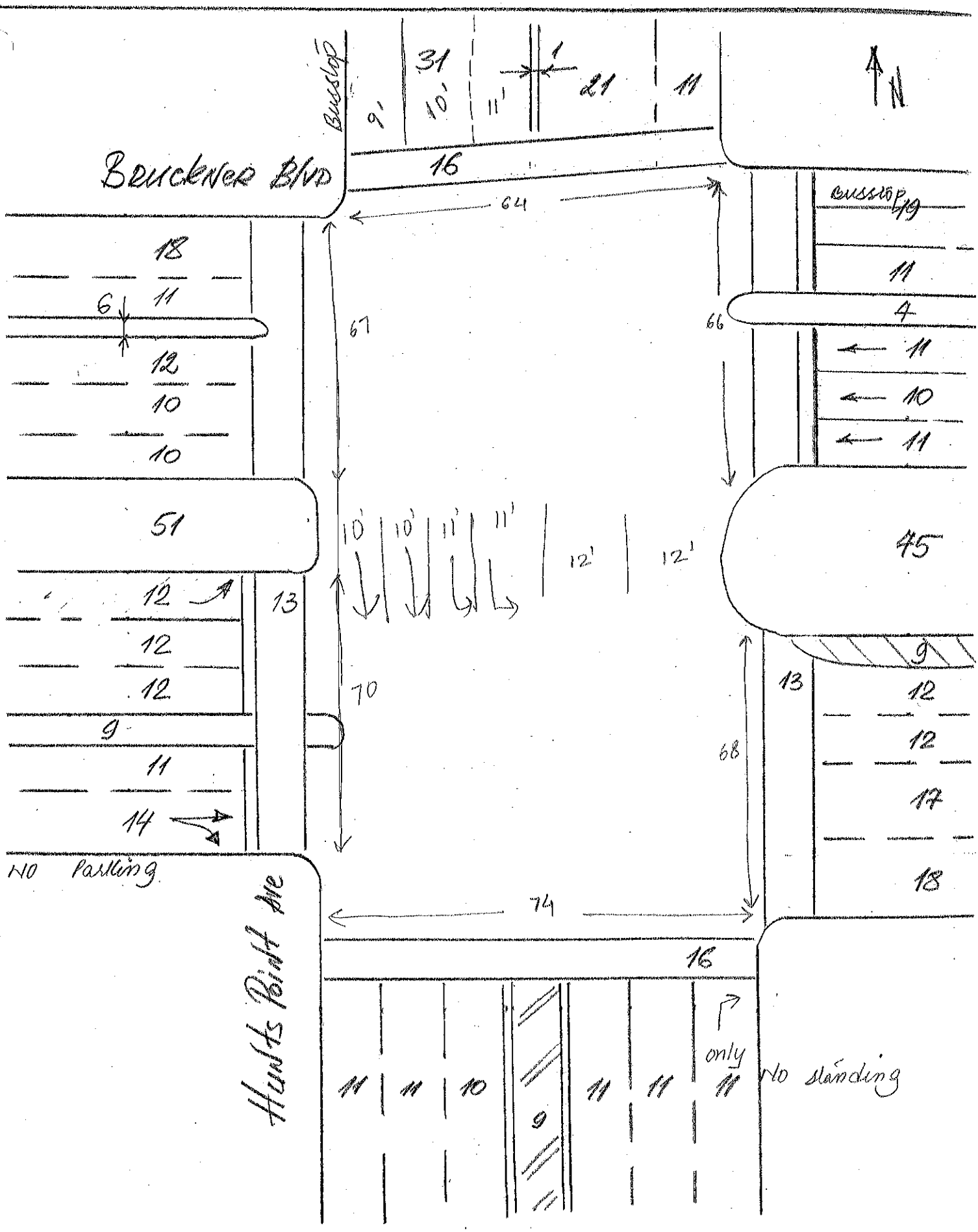
Project Name Hunts Point WPCP
N-S Tiffany Street
Peak Period PM
E-W Randall Avenue
Survey Date 11-Apr-06

Time Period						Heavy Vehicles					
	Auto	SUV	Taxi	Light Truck	Medium Truck	Heavy Truck	Jitney Bus	Full size Bus	Small School Bus	Full size School Bus
						North					
2:30 PM - 2:45 PM	30	16	0	15	13	30	0	0	0	0
3:30 PM - 3:45 PM	26	14	0	1	1	9	0	0	0	0
4:30 PM 4:45 PM	26	7	0	2	1	7	0	0	0	0
PHV						31				
						West					
2:30 PM - 2:45 PM	38	22	0	8	9	8	0	0	0	0
3:30 PM - 3:45 PM	32	18	0	7	7	13	0	0	0	2
4:30 PM 4:45 PM	43	16	0	7	10	3	0	0	0	0
PHV						22				
						South					
2:45 PM - 3:00 PM	22	8	0	7	8	14	1	0	0	0
3:45 PM - 4:00 PM	31	6	0	9	9	17	0	0	1	3
4:45 PM - 5:00 PM	33	13	0	3	13	7	0	0	0	0
PHV						36				
						East					
2:45 PM - 3:00 PM	28	7	0	9	13	16	0	0	0	1
3:45 PM - 4:00 PM	33	10	1	10	15	8	0	0	1	1
4:45 PM - 5:00 PM	25	16	0	5	10	5	0	0	0	1
PHV						33				

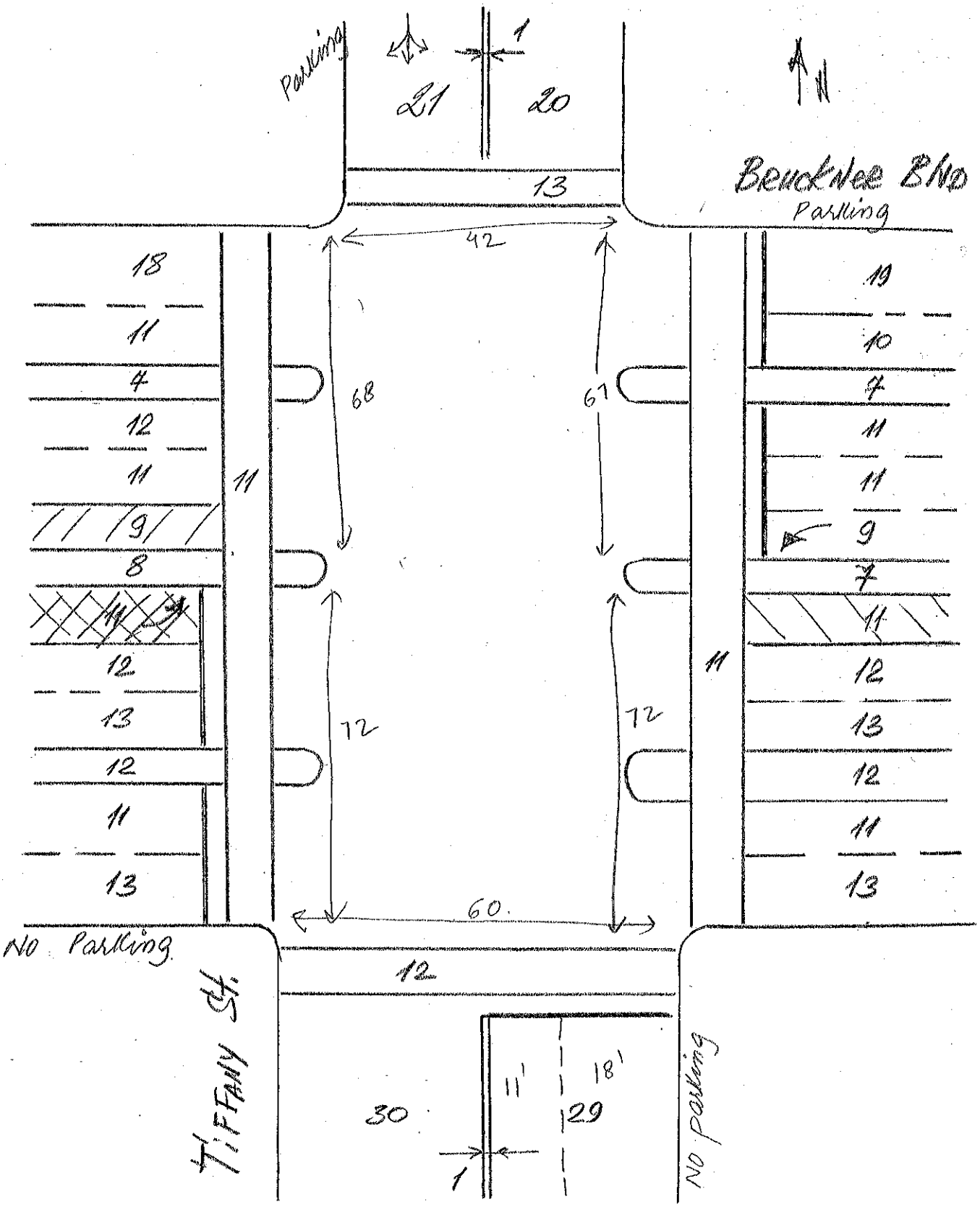
Physical Inventories

Hunts Point WPCP—Traffic Backup
08/01/2006

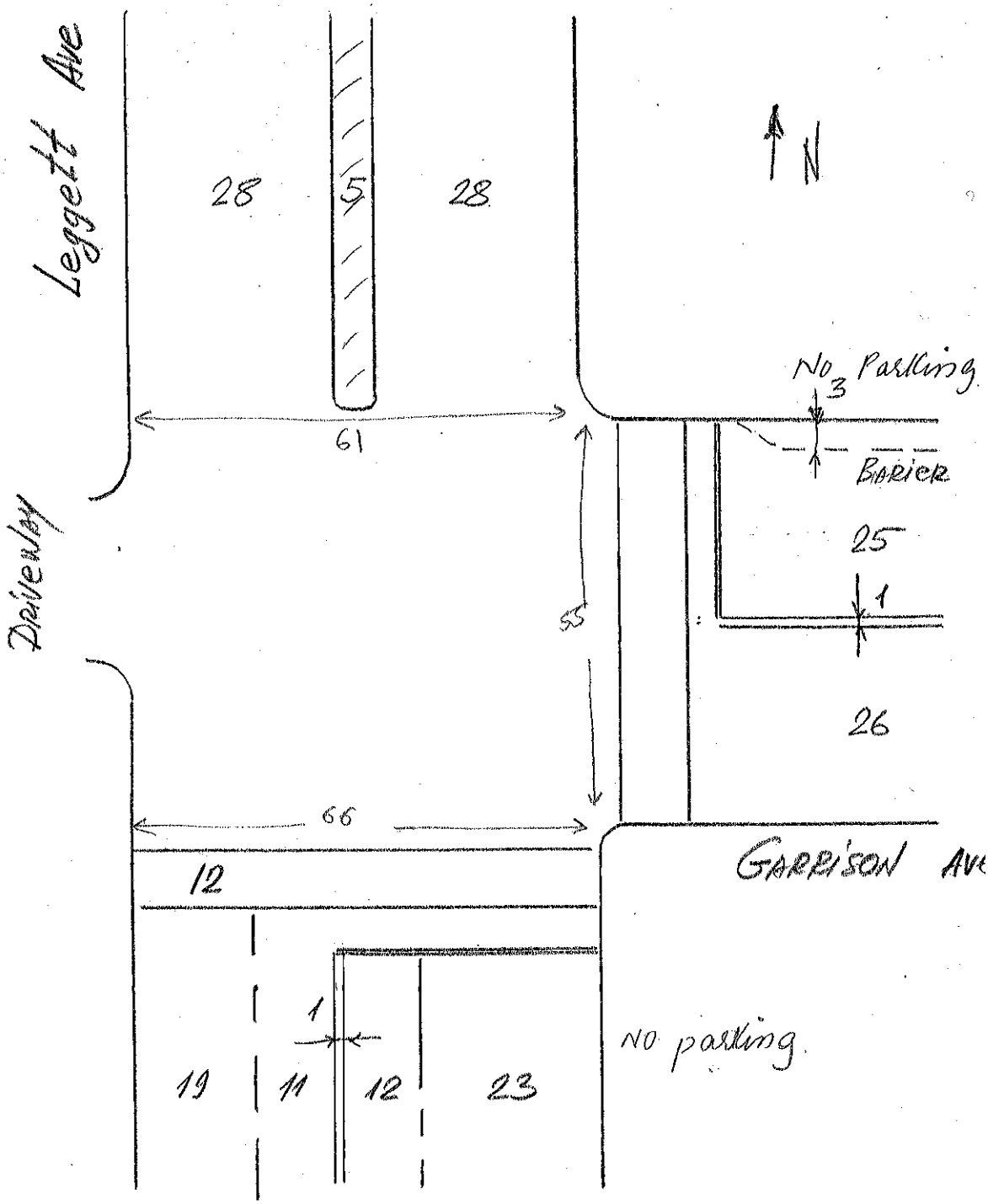
1 - Bruckner Blvd @ Hunts Point Avenue



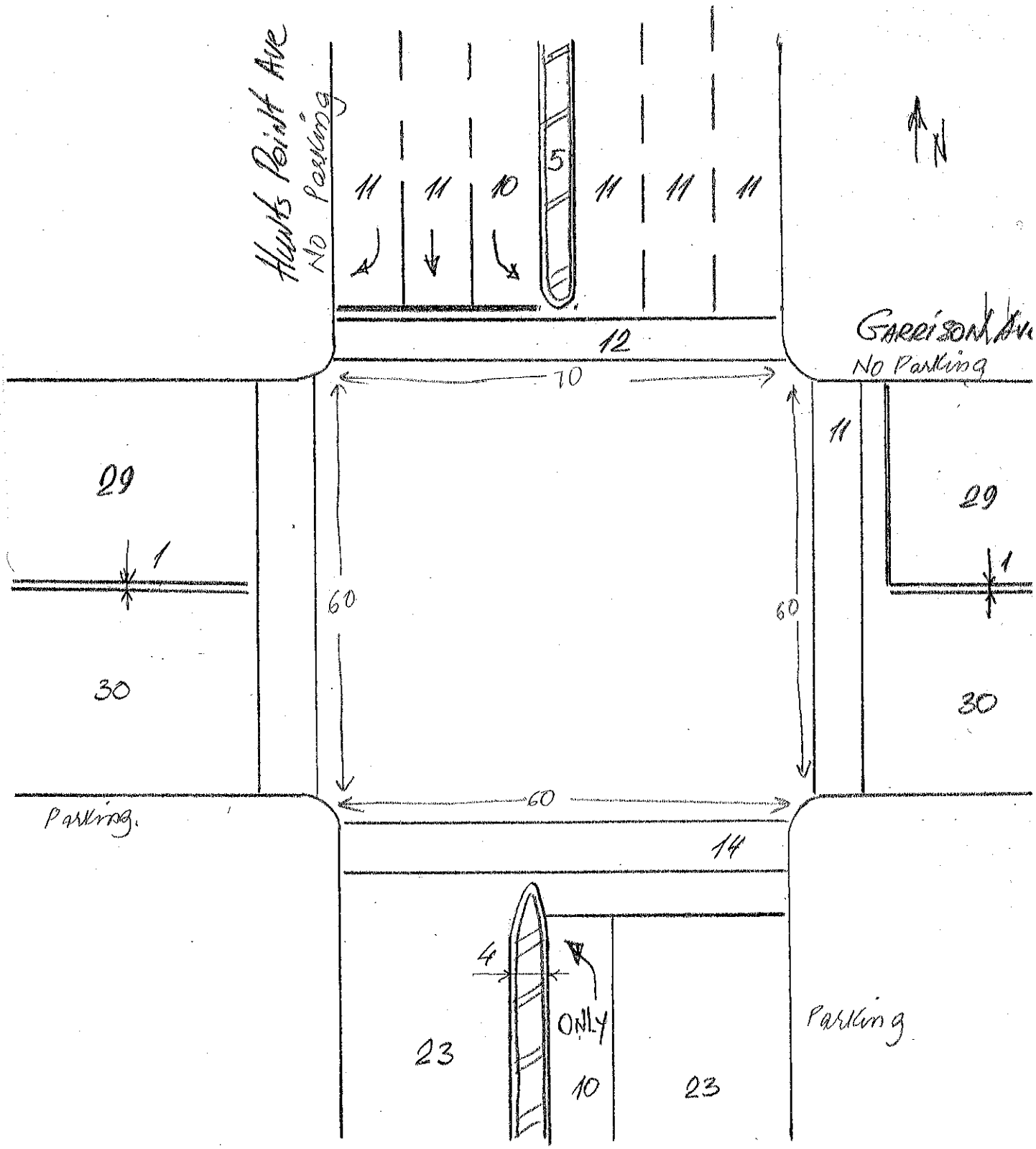
2 - Bruckner Blvd @ Tiffany Street



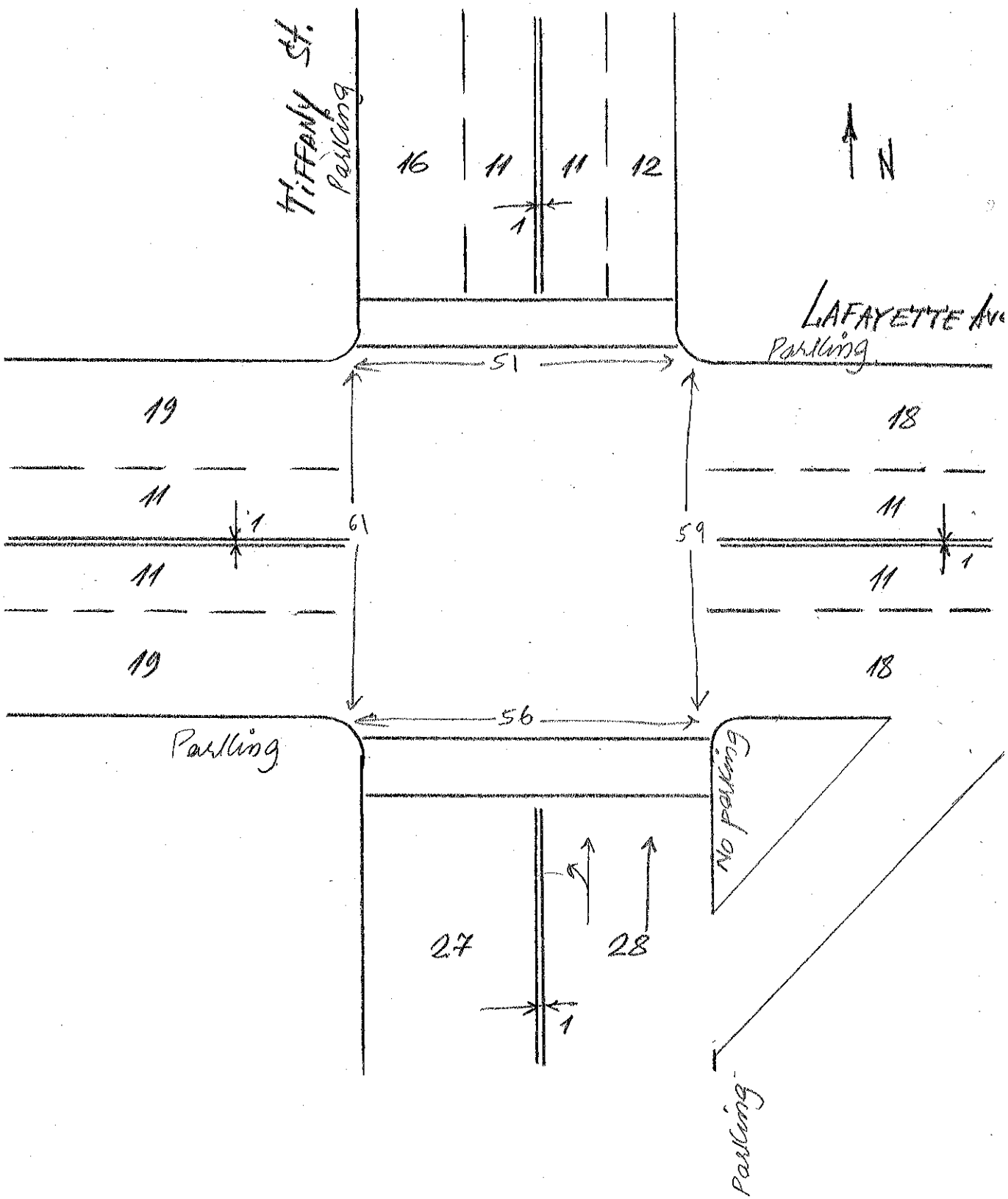
3 - Garrison Avenue @ Leggett Avenue



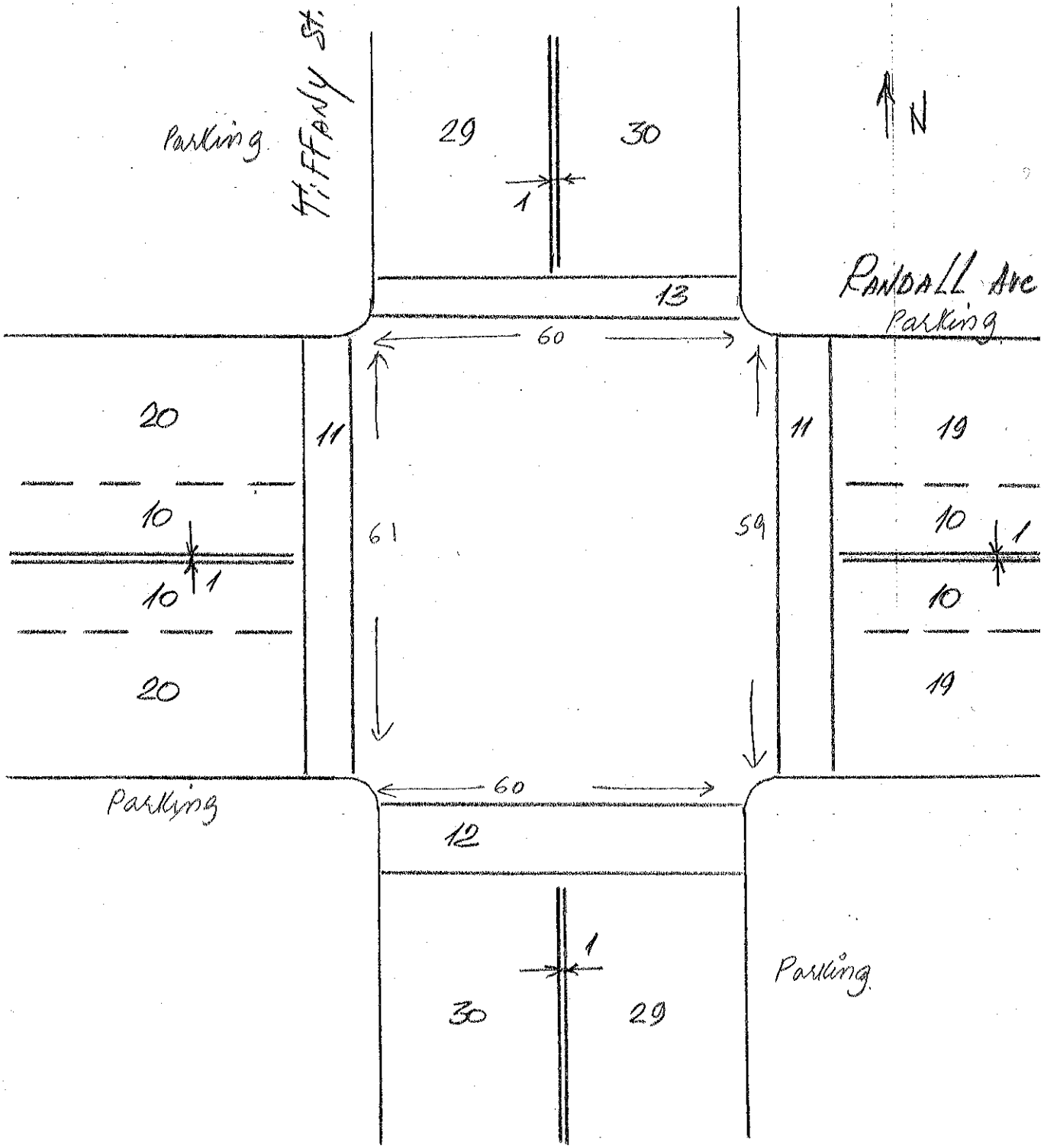
4- Garrison Avenue & Hunts Point Avenue

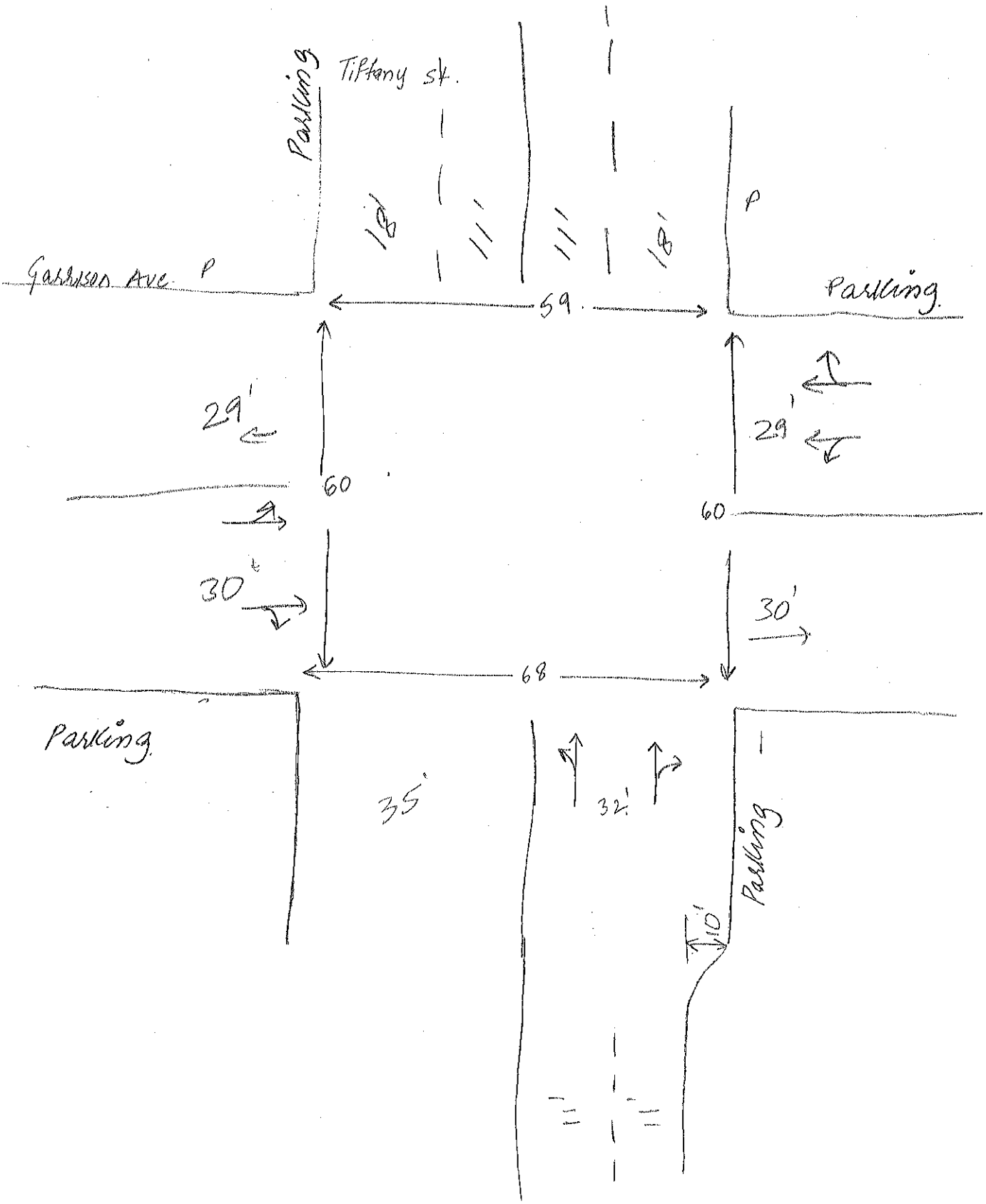


5 - Lafayette Avenue @ Tiffany Street



6 - Randall Avenue & Tiffany Street




Parking
Tiffany st.
18'
11'
11'
18'
P
Garrison Ave. P
59'
Parking
29'
29'
60
60
30'
30'
68'
Parking
35'
32'
Parking
10'

Official Signal Timings

Hunts Point WPCP—Traffic Backup
08/01/2006

34-02 Queens Boulevard
Long Island City NY 11101
Tel: 718 786 2252
Fax: 718 472 9312

New York City Department of Transportation

Iris Weinshall, Commissioner

FAX TRANSMITTAL SHEET

To: AKRF, INC-Thomas Mazur

Fax #: 212 213 3191

From: GENIA NUNEZ

Sender's phone #: 718 786 2252

Fax #: 718 472 9312

Number of pages to follow: 4

Date 5/9/06

ACTION TO BE TAKEN:

URGENT/IMMEDIATE ATTENTION

AWAITING YOUR COMMENTS

PER YOUR REQUEST

FOR YOUR INFORMATION

PLEASE CALL UPON RECEIPT

Comments

HUNTS POINT WPCP-

Operator:

DOT TIMING SECTION
ANALYSIS OF INTERSECTION TIMING

INTERSECTION Bruckner Blvd @ Tiffany Street
TYPE OF SYSTEM Semi-Actuated
TYPE OF CONTROL Computer

MOVEMENT	TIME OF OPERATION			
	MON - FRI 6:30 - 12:00 WEEKEND: 7:00 - 15:30	MON - FRI 12:00 - 15:00	MON - FRI 15:00 - 19:30 WEEKEND: 15:30 - 19:30	MON - FRI 19:30 - 6:30 WEEKEND: 19:30 - 7:00
	120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE
OFFSET	95	95	6	95
Bruckner Blvd				
TOTAL GREEN	39	49	58	49
AMBER	3	3	3	3
RED	2	2	2	2
Tiffany Street				
TOTAL GREEN	31	31	31	31
AMBER	3	3	3	3
RED	2	2	2	2
S/B Bruckner Blvd + L/T				
TOTAL GREEN	34	24	16	24
AMBER	6	6	5	6

INTERSECTION Hunts Point Av @ Garrison Av
TYPE OF SYSTEM Non-Actuated
TYPE OF CONTROL Computer

MOVEMENT	TIME OF OPERATION			
	MON - FRI 6:30 - 12:00 WEEKEND: 7:00 - 15:30	MON - FRI 12:00 - 15:00	MON - FRI 15:00 - 19:30 WEEKEND: 15:30 - 19:30	MON - FRI 19:30 - 6:30 WEEKEND: 19:30 - 7:00
	120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE
OFFSET	60	60	114	60
Hunts Point Av				
TOTAL GREEN	59	59	59	59
AMBER	3	3	3	3
RED	2	2	2	2
S/B Hunts Point Av + L/T				
TOTAL GREEN	21	21	21	21
AMBER	3	3	3	3
RED	2	2	2	2
Garrison Av				
TOTAL GREEN	25	25	25	25
AMBER	3	3	3	3
RED	2	2	2	2

GN - 5/8/06

NOTE: All timing in seconds

DOT TIMING SECTION

ANALYSIS OF INTERSECTION TIMING

INTERSECTION Bruckner Blvd N/B @ Hunts Point Av
TYPE OF SYSTEM Non-Actuated
TYPE OF CONTROL Computer

MOVEMENT		TIME OF OPERATION			
		MON - FRI 6:00 - 12:00 WEEKEND: 7:00 - 16:30	MON - FRI 12:00 - 15:00	MON - FRI 15:00 - 19:30 WEEKEND: 16:30 - 19:30	MON - FRI 19:30 - 6:30 WEEKEND: 19:30 - 7:00
		120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE
		OFFSET			
		31	31	20	31
N/B Bruckner Blvd	TOTAL GREEN	46	41	46	46
	AMBER	3	3	3	3
	RED	2	2	2	2
Hunts Point Av	TOTAL GREEN	31	36	31	31
	AMBER	3	3	3	3
	RED	2	2	2	2
E/B Hunts Point Av	TOTAL GREEN	3	3	3	3
	AMBER	3	3	3	3
	RED	2	2	2	2
PED Crossing	WALK	7	7	7	7
	FLASHING	14	14	14	14
	RED	4	4	4	4

INTERSECTION Bruckner Blvd S/B @ Hunts Point Av
TYPE OF SYSTEM Non-Actuated
TYPE OF CONTROL Computer

MOVEMENT		TIME OF OPERATION			
		MON - FRI 6:30 - 12:00 WEEKEND: 7:00 - 15:30	MON - FRI 12:00 - 15:00	MON - FRI 15:00 - 19:30 WEEKEND: 16:30 - 19:30	MON - FRI 19:30 - 6:30 WEEKEND: 19:30 - 7:00
		120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE	120 SEC CYCLE
		OFFSET			
		6	6	115	6
S/B Bruckner Blvd	TOTAL GREEN	71	66	71	66
	AMBER	3	3	3	3
	RED	2	2	2	2
Hunts Point Av	TOTAL GREEN	31	36	31	36
	AMBER	3	3	3	3
	RED	2	2	2	2
W/B Hunts Point Av	TOTAL GREEN	3	3	3	3
	AMBER	3	3	3	3
	RED	2	2	2	2

GN - 05/8/06

NOTE: All timing in seconds

DOT TIMING SECTION
ANALYSIS OF INTERSECTION TIMING

INTERSECTION Leggett Avenue @ Garrison Avenue
TYPE OF SYSTEM Semi-Actuated
TYPE OF CONTROL Mechanical

TIME OF OPERATION:
AAT

60 SEC CYCLE

OFFSET 58.8

MOVEMENT		
Leggett Avenue	TOTAL GREEN	31.8
	AMBER	3
	RED	1.2
Garrison Avenue	TOTAL GREEN	19.8
	AMBER	3
	RED	1.2

INTERSECTION Randall Avenue @ Tiffany Street
TYPE OF SYSTEM Non-Actuated
TYPE OF CONTROL Mechanical

TIME OF OPERATION:
AAT

60 SEC CYCLE

OFFSET 58.8

MOVEMENT		
Randall Avenue	TOTAL GREEN	31.8
	AMBER	3
	RED	1.2
Tiffany Street	TOTAL GREEN	19.8
	AMBER	3
	RED	1.2

NOTE: All timing in seconds

GN - 6/8/06

INTERSECTION Tiffany Street @ Oak Point Avenue
TYPE OF SYSTEM Non-Actuated
TYPE OF CONTROL Mechanical

TIME OF OPERATION:
AAT

60 SEC CYCLE

OFFSET 58.8

MOVEMENT		
Tiffany Street	TOTAL GREEN	31.8
	AMBER	3
	RED	1.2
Oak Point Avenue	TOTAL GREEN	19.8
	AMBER	3
	RED	1.2

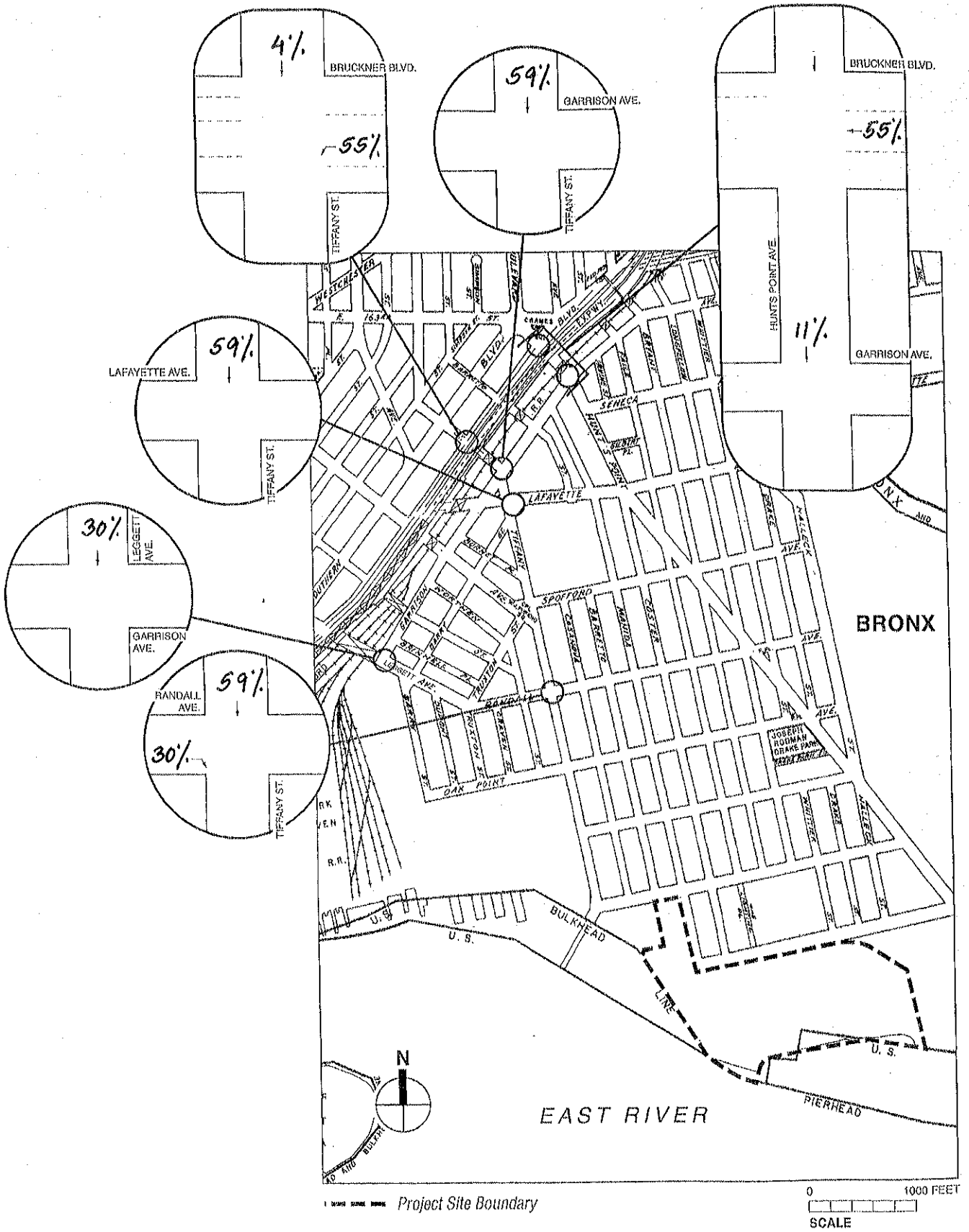
INTERSECTION Tiffany Street @ Garrison Av
TYPE OF SYSTEM Non-Actuated
TYPE OF CONTROL ASTC

	TIME OF OPERATION			
	MON - FRI 6:30 - 12:00 WEEKEND: 7:00 - 15:30	MON - FRI 12:00 - 16:00	MON - FRI 16:00 - 19:30 WEEKEND: 15:30 - 19:30	MON - FRI 19:30 - 6:30 WEEKEND: 19:30 - 7:00
	120 SEC CYCLE	**120** SEC CYCLE	**120** SEC CYCLE	**120** SEC CYCLE
	OFFSET			
MOVEMENT	**19**	**29**	**69**	**29**
Tiffany Street				
TOTAL GREEN	67	67	67	67
AMBER	3	3	3	3
RED	2	2	2	2
Garrison Av				
TOTAL GREEN	43	43	43	43
AMBER	3	3	3	3
RED	2	2	2	2

Build Project Trip Assignments

Hunts Point WPCP—Traffic Backup
08/01/2006

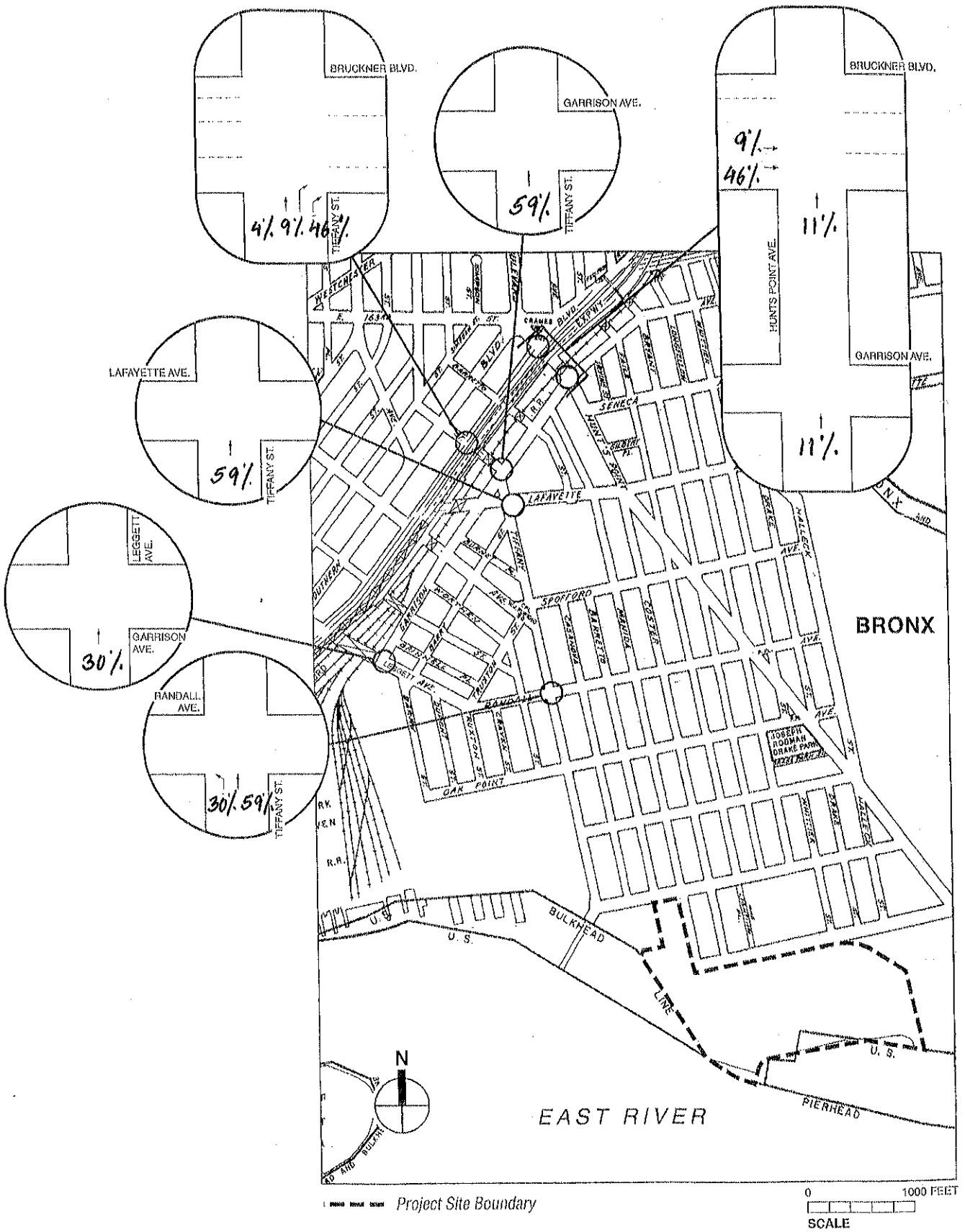
7.14.06



Phase III Construction Traffic Volumes
Auto AM Peak Hour

Hunts Point WPCP

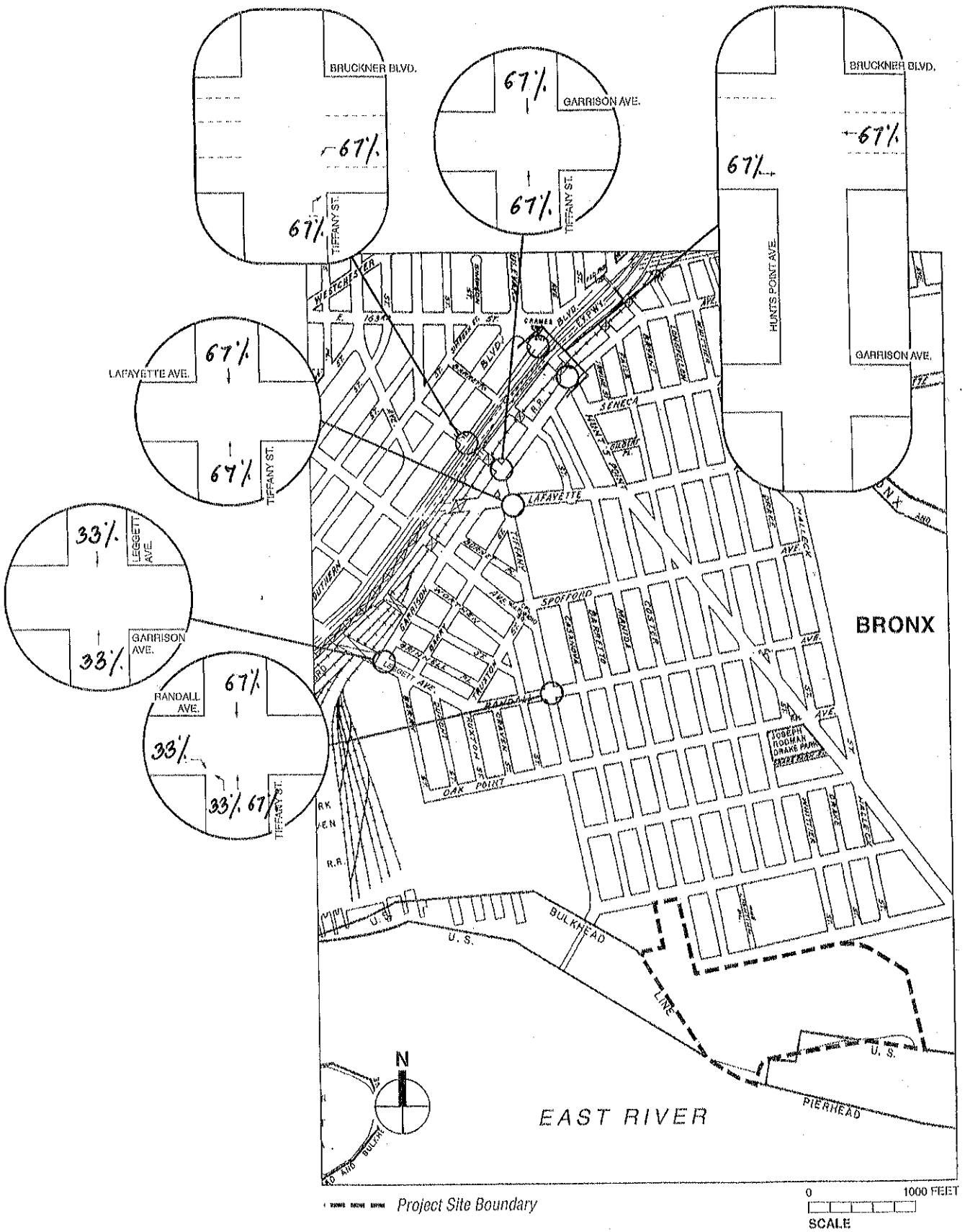
7.14.06



Phase III Construction Traffic Volumes
Auto PM Peak Hour

Hunts Point WPCP

7.14.06



Phase III Construction Traffic Volumes
Truck AM/PM Peak Hour

Hunts Point WPCP

Data Analysis

Highway Capacity Software Analysis for the 2006 Existing Conditions AM Peak Period

Hunts Point WPCP—Traffic Backup
08/01/2006

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Volume					1459		28	175			720	17
Lane Width					11.0			12.0			10.0	
RTOR Vol												0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
T	2620	4428	0.65	0.59	10.9	B	10.9	B
Northbound								
LT	735	3094	0.43	0.32	33.6	C	33.6	C
Southbound								
TR	1151	4454	0.75	0.26	45.6	D	45.6	D

Intersection Delay = 23.8 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

Michael Tyneic
AKRF, Inc

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1459		28	175			720	17
% Heavy Veh					13		16	16			7	7
PHF					0.86		0.64	0.64			0.85	0.85
PK 15 Vol					424		11	68			212	5
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol												0
Adj Flow					1697			317			867	
%InSharedLn												
Prop LTs					0.000			0.139			0.000	
Prop RTs				0.000			0.000			0.023		
Peds Bikes										25	0	
Buses					0			0			7	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g											20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Volume					1143	90	28	175			720	17
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	1868	3158	0.77	0.59	14.0	B	14.0	B
Northbound								
LT	735	3094	0.43	0.32	33.6	C	33.6	C
Southbound								
TR	1151	4454	0.75	0.26	45.6	D	45.6	D

Intersection Delay = 26.8 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

Michael Tyneic
AKRF, Inc

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisdiction: New York City
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1143	90	28	175			720	17
% Heavy Veh					7	7	16	16			7	7
PHF					0.86	0.86	0.64	0.64			0.85	0.85
PK 15 Vol					332	26	11	68			212	5
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0
Adj Flow					1434			317			867	
%InSharedLn												
Prop LTs					0.000			0.139			0.000	
Prop RTs				0.073			0.000			0.023		
Peds Bikes				25	0					25	0	
Buses					11			0			7	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g					19.3						20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Volume	17	483						186	174	347	373	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left		P			NB	Left				
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds			X	
WB	Left					SB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X		X	
NB	Right					EB	Right				
SB	Right					WB	Right				
Green			46.0					31.0	3.0	7.0	
Yellow			3.0					3.0	3.0	14.0	
All Red			2.0					2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	623	1626	0.03	0.38	21.2	C		
T	1249	3259	0.44	0.38	26.2	C	26.0	C
Westbound								
Northbound								
TR	769	2976	0.41	0.26	38.6	D	44.3	D
R	348	1346	0.70	0.26	51.7	D		
Southbound								
L	451	3137	0.90	0.32	69.5	E		
T	1016	3126	0.43	0.32	33.1	C	50.7	D

Intersection Delay = 41.7 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

Michael Tyneic
AKRF, Inc

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	483						186	174	347	373	
% Heavy Veh	11	11						16	16	8	8	
PHF	0.87	0.87						0.64	0.64	0.85	0.85	
PK 15 Vol	5	139						73	68	102	110	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat	1900	1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			
Adj Flow	20	555						318	245	408	439	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.000						0.086	1.000		0.000		
Peds Bikes				0			25					
Buses	0	0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0	0.0	0.0	0.0	
Arriv. Type	4	4						3	3	3	3	
Unit Ext.	3.0	3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time	2.0	2.0						2.0	2.0	2.0	2.0	
Ext of g	2.0	2.0						2.0	2.0	2.0	2.0	
Ped Min g				19.2				20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Volume		236	98					186	174	347	373	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru		P			Thru	P			
Right		P			Right	P			
Peds		X			Peds			X	
WB Left					SB Left	P	P		
Thru					Thru	P	P		
Right					Right				
Peds					Peds	X		X	
NB Right					EB Right				
SB Right					WB Right				
Green		46.0				31.0	3.0	7.0	
Yellow		3.0				3.0	3.0	14.0	
All Red		2.0				2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1031	2689	0.37	0.38	25.3	C	25.3	C
Westbound								
Northbound								
TR	769	2976	0.41	0.26	38.6	D	44.3	D
R	348	1346	0.70	0.26	51.7	D		
Southbound								
L	451	3137	0.90	0.32	69.5	E		
T	1016	3126	0.43	0.32	33.1	C	50.7	D

Intersection Delay = 43.2 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		236	98					186	174	347	373	
% Heavy Veh		30	30					16	16	8	8	
PHF		0.87	0.87					0.64	0.64	0.85	0.85	
PK 15 Vol		68	28					73	68	102	110	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat		1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			
Adj Flow		384						318	245	408	439	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.294						0.086	1.000		0.000		
Peds Bikes	25	0					25					
Buses		0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0						0.0	0.0	0.0	0.0	
Arriv. Type		4						3	3	3	3	
Unit Ext.		3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time		2.0						2.0	2.0	2.0	2.0	
Ext of g		2.0						2.0	2.0	2.0	2.0	
Ped Min g		21.8						20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		262		393	570		26	26	99	28	28	13
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left	P				SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	34.0	39.0				31.0		
Yellow	6.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1077	3313	0.31	0.32	30.1	C	30.1	C
Westbound								
L	472	1665	1.05	0.28	99.0	F		
T	2038	3095	0.35	0.66	4.2	A	42.9	D
Northbound								
LT	407	1576	0.16	0.26	35.2	D	36.8	D
R	403	1560	0.30	0.26	37.7	D		
Southbound								
LTR	398	1540	0.22	0.26	36.3	D	36.3	D

Intersection Delay = 39.6 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		262		393	570		26	26	99	28	28	13
% Heavy Veh		11		13	13		16	16	16	8	8	8
PHF		0.78		0.79	0.79		0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		84		124	180		8	8	30	9	9	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0		1	2	0	0	1	1	0	1	0
LGConfig		T		L		T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		336		497	722			64	121		89	
%InSharedLn												
Prop LTs		0.000			0.000			0.500			0.404	
Prop RTs	0.000			0.000			0.000		1.000	0.191		
Peds Bikes	0						10		0	10		0
Buses		0		0		0			0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.2						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		147	7		718	59	26	26	99	28	28	13
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	34.0	39.0				31.0		
Yellow	6.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	898	2762	0.22	0.32	29.0	C	29.0	C
Westbound								
TR	1940	2947	0.51	0.66	5.3	A	5.3	A
Northbound								
LT	407	1576	0.16	0.26	35.2	D	36.8	D
R	403	1560	0.30	0.26	37.7	D		
Southbound								
LTR	398	1540	0.22	0.26	36.3	D	36.3	D

Intersection Delay = 14.4 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		147	7		718	59	26	26	99	28	28	13
% Heavy Veh		30	30		8	8	16	16	16	8	8	8
PHF		0.78	0.78		0.79	0.79	0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		47	2		227	19	8	8	30	9	9	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		197			984			64	121		89	
%InSharedLn												
Prop LTs		0.000			0.000			0.500			0.404	
Prop RTs		0.046			0.076			0.000	1.000		0.191	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave and Legett Ave
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Legett Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	2	2	1	11	2	13	1	552	12	30	603	3
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	19.8					31.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	641	1942	0.02	0.33	13.6	B	13.6	B
Westbound								
LTR	538	1629	0.08	0.33	14.1	B	14.1	B
Northbound								
LTR	1782	3363	0.36	0.53	8.8	A	8.8	A
Southbound								
LTR	1721	3248	0.41	0.53	9.2	A	9.2	A

Intersection Delay = 9.2 (sec/veh) Intersection LOS = A

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave and Legett Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Legett Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	2	2	1	11	2	13	1	552	12	30	603	3
% Heavy Veh	2	2	2	23	23	23	16	16	16	8	8	8
PHF	0.50	0.50	0.50	0.59	0.59	0.59	0.87	0.87	0.87	0.91	0.91	0.91
PK 15 Vol	1	1	1	5	1	6	1	159	3	8	166	1
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0
Adj Flow		10			44			649			699	
%InSharedLn												
Prop LTs		0.400			0.432			0.002			0.047	
Prop RTs		0.200			0.500			0.022			0.004	
Peds Bikes	5		0	5			0		0	0		
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		19.7			18.5			17.0			3.2	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Hunts Point Ave
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Volume	36	118	29	4	16	89	12	235	37	94	356	21
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P	P	
Thru	P				Thru	P	P	
Right	P				Right	P	P	
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0					59.0	21.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	483	2319	0.45	0.21	44.5	D	44.5	D
Westbound								
LTR	536	2574	0.24	0.21	40.7	D	40.7	D
Northbound								
L	342	695	0.04	0.49	16.0	B		
TR	1312	2669	0.22	0.49	17.7	B	17.7	B
Southbound								
L	793	1547	0.15	0.71	6.4	A		
T	1205	1701	0.36	0.71	7.7	A	7.3	A
R	1011	1428	0.03	0.71	5.2	A		

Intersection Delay = 20.0+ (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave & Hunts Point Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	36	118	29	4	16	89	12	235	37	94	356	21
% Heavy Veh	18	18	18	23	23	23	16	16	16	8	8	8
PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.95	0.95	0.95	0.82	0.82	0.82
PK 15 Vol	11	35	9	1	5	26	3	62	10	29	109	6
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900		1900	1900		1900	1900	1900
ParkExist			X						X			
NumPark			5						5			
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0
Adj Flow		218			129		13	286		115	434	26
%InSharedLn												
Prop LTs		0.197			0.039		1.000	0.000		1.000	0.000	
Prop RTs	0.161			0.814			0.136			0.000		1.000
Peds Bikes	20		0	20		0	20		0	20		0
Buses		0			0		0	0		0	0	0
%InProtPhase										0.0		0.0

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Arriv. Type		3			3		3	3		3	3	3
Unit Ext.		3.0			3.0		3.0	3.0		3.0	3.0	3.0
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ext of g		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ped Min g		18.3			20.9			18.4			18.4	

HCS2000: Unsignalized Intersections Release 4.1f

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	7	72	13	131	74	11	22	106	0	43	343	5
% Thrus Left Lane		50			50			50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LT	TR	LT	T	LT	TR
PHF	0.68	0.68	0.74	0.74	0.80	0.80	0.86	0.86
Flow Rate	62	71	226	63	93	66	247	204
% Heavy Veh	18	18	23	23	16	16	8	8
No. Lanes	2		2		2		2	
Opposing-Lanes	2		2		2		2	
Conflicting-lanes	2		2		2		2	
Geometry group	5		5		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	62	71	226	63	93	66	247	204
Left-Turn	10	0	177	0	27	0	49	0
Right-Turn	0	19	0	14	0	0	0	5
Prop. Left-Turns	0.2	0.0	0.8	0.0	0.3	0.0	0.2	0.0
Prop. Right-Turns	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Geometry Group	5		5		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.5		0.5		0.5		0.5	

hRT-adj		-0.7		-0.7		-0.7		-0.7
hHV-adj		1.7		1.7		1.7		1.7
hadj, computed	0.4	0.1	0.8	0.2	0.4	0.3	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	62	71	226	63	93	66	247	204
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06	0.06	0.20	0.06	0.08	0.06	0.22	0.18
hd, final value	7.09	6.82	7.19	6.65	6.94	6.80	6.35	6.24
x, final value	0.12	0.13	0.45	0.12	0.18	0.12	0.44	0.35
Move-up time, m	2.3		2.3		2.3		2.3	
Service Time	4.8	4.5	4.9	4.3	4.6	4.5	4.1	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	62	71	226	63	93	66	247	204
Service Time	4.8	4.5	4.9	4.3	4.6	4.5	4.1	3.9
Utilization, x	0.12	0.13	0.45	0.12	0.18	0.12	0.44	0.35
Dep. headway, hd	7.09	6.82	7.19	6.65	6.94	6.80	6.35	6.24
Capacity	312	321	476	313	343	316	497	454
Delay	10.77	10.58	15.68	10.22	11.16	10.46	13.87	12.31
LOS	B	B	C	B	B	B	B	B
Approach:								
Delay	10.67		14.49		10.87		13.17	
LOS	B		B		B		B	
Intersection Delay 12.86			Intersection LOS B					

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Randall Avenue

Inter.: Randall Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	9	270	48	5	268	57	85	125	4	111	254	19
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		31.8						19.8			
Yellow		3.0						3.0			
All Red		1.2						1.2			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1115	2103	0.32	0.53	8.8	A	8.8	A
Westbound								
LTR	1040	1962	0.34	0.53	9.0	A	9.0	A
Northbound								
LTR	486	1473	0.47	0.33	19.1	B	19.1	B
Southbound								
LTR	600	1819	0.68	0.33	23.5	C	23.5	C

Intersection Delay = 15.0 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Randall Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Randall Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	9	270	48	5	268	57	85	125	4	111	254	19
% Heavy Veh	44	44	44	52	52	52	57	57	57	39	39	39
PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
PK 15 Vol	3	74	13	2	73	15	23	33	1	30	68	5
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0
Adj Flow		360			358			227			408	
%InSharedLn												
Prop LTs		0.028			0.014			0.396			0.289	
Prop RTs		0.147			0.173			0.018			0.049	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		18.2			18.2			18.0			18.5	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	17	46	7	46	104	27	5	107	12	17	338	73
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	43.0					67.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	847	2364	0.12	0.36	26.1	C	26.1	C
Westbound								
LTR	780	2177	0.26	0.36	28.1	C	28.1	C
Northbound								
LTR	1460	2615	0.10	0.56	12.5	B	12.5	B
Southbound								
LTR	1526	2734	0.29	0.56	14.4	B	14.4	B

Intersection Delay = 18.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	46	7	46	104	27	5	107	12	17	338	73
% Heavy Veh	18	18	18	23	23	23	16	16	16	8	8	8
PHF	0.70	0.70	0.70	0.87	0.87	0.87	0.89	0.89	0.89	0.97	0.97	0.97
PK 15 Vol	6	16	3	13	30	8	2	30	3	5	87	19
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0
Adj Flow		100			204			139			441	
%InSharedLn												
Prop LTs		0.240			0.260			0.043			0.041	
Prop RTs	0.100			0.152			0.094			0.170		
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		20.3			18.0			18.3			18.3	

HCS2000: Unsignalized Intersections Release 4.1f

TWO-WAY STOP CONTROL SUMMARY

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		115			216	
Peak-Hour Factor, PHF		0.68			0.74	
Hourly Flow Rate, HFR		169			291	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			20			
Peak Hour Factor, PHF			0.80			
Hourly Flow Rate, HFR			24			
Percent Heavy Vehicles			16			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes			1			
Configuration			R			

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			
v (vph)					24			
C(m) (vph)					903			
v/c					0.03			
95% queue length					0.08			
Control Delay					9.1			
LOS					A			
Approach Delay				9.1				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1f

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		115			216	
Peak-Hour Factor, PHF		0.68			0.74	
Peak-15 Minute Volume		42			73	
Hourly Flow Rate, HFR		169			291	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			20			
Peak Hour Factor, PHF			0.80			
Peak-15 Minute Volume			6			
Hourly Flow Rate, HFR			24			
Percent Heavy Vehicles			16			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
RT Channelized?			No			
Lanes			1			
Configuration			R			

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	5	0

Data Analysis

Highway Capacity Software Analysis for the 2006 Existing Conditions PM Peak Period

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Volume					1135		52	293			658	12
Lane Width					11.0			12.0			10.0	
RTOR Vol												0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
T	2407	4068	0.51	0.59	9.3	A	9.3	A
Northbound								
LT	793	3383	0.51	0.32	35.2	D	35.2	D
Southbound								
TR	1059	4101	0.70	0.26	44.2	D	44.2	D

Intersection Delay = 24.7 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1135		52	293			658	12
% Heavy Veh					23		6	6			16	16
PHF					0.93		0.85	0.85			0.90	0.90
PK 15 Vol					305		15	86			183	3
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol												0
Adj Flow					1220			406			744	
%InSharedLn												
Prop LTs					0.000			0.150			0.000	
Prop RTs				0.000			0.000			0.017		
Peds Bikes										25	0	
Buses					0			0			9	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g											20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Volume					753	79	52	293			658	12
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	1821	3077	0.49	0.59	9.3	A	9.3	A
Northbound								
LT	793	3383	0.51	0.32	35.2	D	35.2	D
Southbound								
TR	1059	4101	0.70	0.26	44.2	D	44.2	D

Intersection Delay = 27.2 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

Michael Tyneic
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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					753	79	52	293			658	12
% Heavy Veh					9	9	6	6			16	16
PHF					0.93	0.93	0.85	0.85			0.90	0.90
PK 15 Vol					202	21	15	86			183	3
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0
Adj Flow					895			406			744	
%InSharedLn												
Prop LTs					0.000			0.150			0.000	
Prop RTs				0.095			0.000			0.017		
Peds Bikes				25	0					25	0	
Buses					13			0			9	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g					19.3						20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Volume	28	1062						317	234	475	183	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left		P			NB	Left				
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds			X	
WB	Left					SB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X		X	
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		46.0						31.0	3.0	7.0	
Yellow		3.0						3.0	3.0	14.0	
All Red		2.0						2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	607	1583	0.05	0.38	21.4	C		
T	1216	3173	1.02	0.38	63.5	E	62.4	E
Westbound								
Northbound								
TR	843	3265	0.47	0.26	39.5	D	42.8	D
R	381	1473	0.65	0.26	48.0	D		
Southbound								
L	504	2876	1.05	0.32	99.1	F		
T	885	2723	0.23	0.32	30.1	C	80.0-	E

Intersection Delay = 62.5 (sec/veh) Intersection LOS = E

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisdiction: New York City
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	1062						317	234	475	183	
% Heavy Veh	14	14						6	6	24	24	
PHF	0.86	0.86						0.85	0.85	0.90	0.90	
PK 15 Vol	8	309						93	69	132	51	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat	1900	1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			
Adj Flow	33	1235						400	248	528	203	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.000						0.069	1.000		0.000		
Peds Bikes				0			25					
Buses	0	0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0	0.0	0.0	0.0	
Arriv. Type	4	4						3	3	3	3	
Unit Ext.	3.0	3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time	2.0	2.0						2.0	2.0	2.0	2.0	
Ext of g	2.0	2.0						2.0	2.0	2.0	2.0	
Ped Min g				19.2				20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Volume		666	70					317	234	475	183	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru		P				Thru	P			
	Right		P				Right	P			
	Peds		X				Peds			X	
WB	Left					SB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X		X	
NB	Right					EB	Right				
SB	Right					WB	Right				
Green			46.0					31.0	3.0	7.0	
Yellow			3.0					3.0	3.0	14.0	
All Red			2.0					2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1261	3290	0.68	0.38	31.1	C	31.1	C
Westbound								
Northbound								
TR	843	3265	0.47	0.26	39.5	D	42.8	D
R	381	1473	0.65	0.26	48.0	D		
Southbound								
L	504	2876	1.05	0.32	99.1	F		
T	885	2723	0.23	0.32	30.1	C	80.0-	E

Intersection Delay = 50.5 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		666	70					317	234	475	183	
% Heavy Veh		10	10					6	6	24	24	
PHF		0.86	0.86					0.85	0.85	0.90	0.90	
PK 15 Vol		194	20					93	69	132	51	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat		1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			
Adj Flow		855						400	248	528	203	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.095						0.069	1.000		0.000		
Peds Bikes	25	0					25					
Buses		0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0						0.0	0.0	0.0	0.0	
Arriv. Type		4						3	3	3	3	
Unit Ext.		3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time		2.0						2.0	2.0	2.0	2.0	
Ext of g		2.0						2.0	2.0	2.0	2.0	
Ped Min g		21.8						20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP Sat. Flow rate (WBL = 2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		764		202	470		19	54	120	119	91	30
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left	P				SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	16.0	58.0				31.0		
Yellow	5.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1559	3226	0.58	0.48	19.3	B	19.3	B
Westbound								
L	204	1529	1.05	0.13	129.9	F		
T	1872	2843	0.27	0.66	3.8	A	41.8	D
Northbound								
LT	447	1730	0.19	0.26	35.6	D	36.9	D
R	441	1707	0.31	0.26	37.8	D		
Southbound								
LTR	350	1354	0.83	0.26	61.5	E	61.5	E

Intersection Delay = 34.3 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP Sat. Flow rate (WBL = 2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		764		202	470		19	54	120	119	91	30
% Heavy Veh		14		23	23		6	6	6	24	24	24
PHF		0.84		0.94	0.94		0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		227		54	125		5	16	34	36	27	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0		1	2	0	0	1	1	0	1	0
LGConfig		T		L		T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		910		215	500			84	138		289	
%InSharedLn												
Prop LTs		0.000			0.000			0.262			0.495	
Prop RTs	0.000			0.000			0.000		1.000	0.125		
Peds Bikes	10						10	0		10	0	
Buses		0		0	0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.3						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		533	7		534	102	19	54	120	119	91	30
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	16.0	58.0				31.0		
Yellow	5.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1586	3282	0.41	0.48	16.5	B	16.5	B
Westbound								
TR	1880	2855	0.36	0.66	4.3	A	4.3	A
Northbound								
LT	447	1730	0.19	0.26	35.6	D	36.9	D
R	441	1707	0.31	0.26	37.8	D		
Southbound								
LTR	350	1354	0.83	0.26	61.5	E	61.5	E

Intersection Delay = 21.6 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		533	7		534	102	19	54	120	119	91	30
% Heavy Veh		10	10		10	10	6	6	6	24	24	24
PHF		0.84	0.84		0.94	0.94	0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		159	2		142	27	5	16	34	36	27	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		643			677			84	138		289	
%InSharedLn												
Prop LTs		0.000			0.000			0.262			0.495	
Prop RTs		0.012			0.161			0.000	1.000		0.125	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave and Legett Ave
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Legett Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	1	1	1	19	1	30	1	469	41	59	501	1
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	19.8					31.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	639	1936	0.00	0.33	13.5	B	13.5	B
Westbound								
LTR	615	1863	0.12	0.33	14.4	B	14.4	B
Northbound								
LTR	1933	3648	0.32	0.53	8.4	A	8.4	A
Southbound								
LTR	1394	2631	0.43	0.53	9.6	A	9.6	A

Intersection Delay = 9.3 (sec/veh) Intersection LOS = A

HCS2000: Signalized Intersections Release 4.1f

Michael Tyneic
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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave and Legett Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Legett Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	1	1	1	19	1	30	1	469	41	59	501	1
% Heavy Veh	2	2	2	6	6	6	6	6	6	24	24	24
PHF	0.90	0.90	0.90	0.68	0.68	0.68	0.83	0.83	0.83	0.93	0.93	0.93
PK 15 Vol	1	1	1	7	1	11	1	141	12	16	135	1
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0
Adj Flow		3			73			615			603	
%InSharedLn												
Prop LTs		0.333			0.384			0.002			0.104	
Prop RTs		0.333			0.603			0.080			0.002	
Peds Bikes	5		0	5			0		0	0		
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		19.7			18.5			17.0			3.2	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Hunts Point Ave
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Volume	48	143	62	7	40	113	35	390	67	44	198	11
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P	P		
	Thru	P					Thru	P	P		
	Right	P					Right	P	P		
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		25.0						59.0	21.0		
Yellow		3.0						3.0	3.0		
All Red		2.0						2.0	2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	517	2484	0.57	0.21	47.1	D	47.1	D
Westbound								
LTR	631	3029	0.29	0.21	41.1	D	41.1	D
Northbound								
L	493	1003	0.08	0.49	16.4	B		
TR	1434	2916	0.35	0.49	19.5	B	19.2	B
Southbound								
L	588	1351	0.09	0.71	7.8	A		
T	1049	1481	0.23	0.71	6.6	A	6.8	A
R	881	1244	0.01	0.71	5.2	A		

Intersection Delay = 25.5 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave & Hunts Point Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	48	143	62	7	40	113	35	390	67	44	198	11
% Heavy Veh	6	6	6	6	6	6	6	6	6	24	24	24
PHF	0.86	0.86	0.86	0.89	0.89	0.89	0.90	0.90	0.90	0.82	0.82	0.82
PK 15 Vol	14	42	18	2	11	32	10	108	19	13	60	3
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900		1900	1900		1900	1900	1900
ParkExist			X						X			
NumPark			5						5			
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0
Adj Flow		294			180		39	507		54	241	13
%InSharedLn												
Prop LTs		0.190			0.044		1.000	0.000		1.000	0.000	
Prop RTs	0.245			0.706			0.146			0.000		1.000
Peds Bikes	20		0	20		0	20		0	20		0
Buses	0			0			0	0		0	0	0
%InProtPhase										0.0		0.0

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Arriv. Type		3			3		3	3		3	3	3
Unit Ext.		3.0			3.0		3.0	3.0		3.0	3.0	3.0
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ext of g		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ped Min g		18.3			20.9			18.4			18.4	

HCS2000: Unsignalized Intersections Release 4.1f

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	6	87	11	80	89	36	15	122	0	49	216	9
% Thrus Left Lane		50			50			50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LT	TR	LT	T	LT	TR
PHF	0.79	0.79	0.83	0.83	0.76	0.76	0.86	0.86
Flow Rate	61	68	149	97	99	80	181	135
% Heavy Veh	6	6	6	6	6	6	24	24
No. Lanes	2		2		2		2	
Opposing-Lanes	2		2		2		2	
Conflicting-lanes	2		2		2		2	
Geometry group	5		5		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	61	68	149	97	99	80	181	135
Left-Turn	7	0	96	0	19	0	56	0
Right-Turn	0	13	0	43	0	0	0	10
Prop. Left-Turns	0.1	0.0	0.6	0.0	0.2	0.0	0.3	0.0
Prop. Right-Turns	0.0	0.2	0.0	0.4	0.0	0.0	0.0	0.1
Prop. Heavy Vehicle	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Geometry Group	5		5		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.5		0.5		0.5		0.5	

hRT-adj		-0.7		-0.7		-0.7		-0.7
hHV-adj		1.7		1.7		1.7		1.7
hadj, computed	0.2	-0.0	0.4	-0.2	0.2	0.1	0.6	0.4

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	61	68	149	97	99	80	181	135
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.05	0.06	0.13	0.09	0.09	0.07	0.16	0.12
hd, final value	6.40	6.21	6.49	5.86	6.23	6.13	6.39	6.18
x, final value	0.11	0.12	0.27	0.16	0.17	0.14	0.32	0.23
Move-up time, m	2.3		2.3		2.3		2.3	
Service Time	4.1	3.9	4.2	3.6	3.9	3.8	4.1	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	61	68	149	97	99	80	181	135
Service Time	4.1	3.9	4.2	3.6	3.9	3.8	4.1	3.9
Utilization, x	0.11	0.12	0.27	0.16	0.17	0.14	0.32	0.23
Dep. headway, hd	6.40	6.21	6.49	5.86	6.23	6.13	6.39	6.18
Capacity	311	318	399	347	349	330	431	385
Delay	9.88	9.74	11.56	9.66	10.21	9.79	12.09	10.74
LOS	A	A	B	A	B	A	B	B
Approach:								
Delay	9.81		10.81		10.02		11.51	
LOS	A		B		B		B	
Intersection Delay 10.75			Intersection LOS B					

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Randall Avenue

Inter.: Randall Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	8	225	48	11	240	62	67	120	13	104	150	11
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	31.8					19.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1204	2271	0.24	0.53	8.1	A	8.1	A
Westbound								
LTR	1280	2415	0.26	0.53	8.2	A	8.2	A
Northbound								
LTR	616	1867	0.41	0.33	17.6	B	17.6	B
Southbound								
LTR	578	1751	0.55	0.33	20.1	C	20.1	C

Intersection Delay = 13.3 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Randall Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Randall Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	225	48	11	240	62	67	120	13	104	150	11
% Heavy Veh	33	33	33	22	22	22	31	31	31	36	36	36
PHF	0.96	0.96	0.96	0.93	0.93	0.93	0.79	0.79	0.79	0.84	0.84	0.84
PK 15 Vol	2	59	13	3	65	17	21	38	4	31	45	3
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0
Adj Flow		292			337			253			316	
%InSharedLn												
Prop LTs		0.027			0.036			0.336			0.392	
Prop RTs		0.171			0.199			0.063			0.041	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		18.2			18.2			18.0			18.5	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2006 Existing

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	29	84	4	42	84	34	4	130	30	29	228	43
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	43.0					67.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	933	2605	0.16	0.36	26.6	C	26.6	C
Westbound								
LTR	886	2472	0.21	0.36	27.3	C	27.3	C
Northbound								
LTR	1589	2846	0.12	0.56	12.7	B	12.7	B
Southbound								
LTR	1285	2302	0.30	0.56	14.6	B	14.6	B

Intersection Delay = 18.8 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2006 Existing

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	29	84	4	42	84	34	4	130	30	29	228	43
% Heavy Veh	6	6	6	6	6	6	6	6	6	24	24	24
PHF	0.79	0.79	0.79	0.85	0.85	0.85	0.85	0.85	0.85	0.79	0.79	0.79
PK 15 Vol	9	27	1	12	25	10	1	38	9	9	72	14
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0
Adj Flow		148			188			193			380	
%InSharedLn												
Prop LTs		0.250			0.261			0.026			0.097	
Prop RTs		0.034			0.213			0.181			0.142	
Peds Bikes		10	0		10	0		10	0		10	0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		20.3			18.0			18.3			18.3	

HCS2000: Unsignalized Intersections Release 4.1f

TWO-WAY STOP CONTROL SUMMARY

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		136			205	
Peak-Hour Factor, PHF		0.79			0.83	
Hourly Flow Rate, HFR		172			246	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			71			
Peak Hour Factor, PHF			0.76			
Hourly Flow Rate, HFR			93			
Percent Heavy Vehicles			6			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes			1			
Configuration			R			

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			
v (vph)					93			
C(m) (vph)					932			
v/c					0.10			
95% queue length					0.33			
Control Delay					9.3			
LOS					A			
Approach Delay				9.3				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1f

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2006 Existing
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		136			205	
Peak-Hour Factor, PHF		0.79			0.83	
Peak-15 Minute Volume		43			62	
Hourly Flow Rate, HFR		172			246	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			71			
Peak Hour Factor, PHF			0.76			
Peak-15 Minute Volume			23			
Hourly Flow Rate, HFR			93			
Percent Heavy Vehicles			6			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
RT Channelized?			No			
Lanes			1			
Configuration			R			

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	5	0

Data Analysis

Highway Capacity Software Analysis for the 2011 No Build Conditions AM Peak Period

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Volume					1404		29	179			720	17
Lane Width					11.0			12.0			10.0	
RTOR Vol												0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
T	2620	4428	0.62	0.59	10.6	B	10.6	B
Northbound								
LT	732	3094	0.44	0.32	33.9	C	33.9	C
Southbound								
TR	1151	4454	0.75	0.26	45.6	D	45.6	D

Intersection Delay = 24.0 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1404		29	179			720	17
% Heavy Veh					13		16	16			7	7
PHF					0.86		0.64	0.64			0.85	0.85
PK 15 Vol					408		11	70			212	5
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol												0
Adj Flow					1633			325			867	
%InSharedLn												
Prop LTs					0.000			0.138			0.000	
Prop RTs				0.000			0.000			0.023		
Peds Bikes										25	0	
Buses					0			0			7	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g											20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Volume					1172	92	29	179			720	17
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	1869	3159	0.79	0.59	14.6	B	14.6	B
Northbound								
LT	732	3094	0.44	0.32	33.9	C	33.9	C
Southbound								
TR	1151	4454	0.75	0.26	45.6	D	45.6	D

Intersection Delay = 27.0 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisdiction: New York City
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1172	92	29	179			720	17
% Heavy Veh					7	7	16	16			7	7
PHF					0.86	0.86	0.64	0.64			0.85	0.85
PK 15 Vol					341	27	11	70			212	5
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0
Adj Flow					1470			325			867	
%InSharedLn												
Prop LTs					0.000			0.138			0.000	
Prop RTs				0.073			0.000			0.023		
Peds Bikes				25	0					25	0	
Buses					11			0			7	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g					19.3						20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Volume	17	495						191	178	356	364	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left				
	Thru	P					Thru	P			
	Right						Right	P			
	Peds	X					Peds			X	
WB	Left					SB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X		X	
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		46.0						31.0	3.0	7.0	
Yellow		3.0						3.0	3.0	14.0	
All Red		2.0						2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	623	1626	0.03	0.38	21.2	C		
T	1249	3259	0.46	0.38	26.4	C	26.2	C
Westbound								
Northbound								
TR	769	2976	0.42	0.26	38.8	D	44.8	D
R	348	1346	0.72	0.26	52.6	D		
Southbound								
L	445	3137	0.94	0.32	76.3	E		
T	1016	3126	0.42	0.32	33.0	C	54.4	D

Intersection Delay = 43.4 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisdiction: New York City
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	495						191	178	356	364	
% Heavy Veh	11	11						16	16	8	8	
PHF	0.87	0.87						0.64	0.64	0.85	0.85	
PK 15 Vol	5	142						75	70	105	107	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat	1900	1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			
Adj Flow	20	569						326	250	419	428	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.000						0.085	1.000		0.000		
Peds Bikes				0			25					
Buses	0	0					0	0		0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0	0.0	0.0	0.0	
Arriv. Type	4	4						3	3	3	3	
Unit Ext.	3.0	3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time	2.0	2.0						2.0	2.0	2.0	2.0	
Ext of g	2.0	2.0						2.0	2.0	2.0	2.0	
Ped Min g					19.2			20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Volume		241	100					191	178	356	364	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds		X	
WB Left					SB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		X
NB Right					EB Right			
SB Right					WB Right			
Green		46.0				31.0	3.0	7.0
Yellow		3.0				3.0	3.0	14.0
All Red		2.0				2.0	2.0	4.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1031	2689	0.38	0.38	25.4	C	25.4	C
Westbound								
Northbound								
TR	769	2976	0.42	0.26	38.8	D	44.8	D
R	348	1346	0.72	0.26	52.6	D		
Southbound								
L	445	3137	0.94	0.32	76.3	E		
T	1016	3126	0.42	0.32	33.0	C	54.4	D

Intersection Delay = 45.1 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		241	100					191	178	356	364	
% Heavy Veh		30	30					16	16	8	8	
PHF		0.87	0.87					0.64	0.64	0.85	0.85	
PK 15 Vol		69	29					75	70	105	107	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat		1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			
Adj Flow		392						326	250	419	428	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.293						0.085	1.000		0.000		
Peds Bikes	25	0					25					
Buses		0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0						0.0	0.0	0.0	0.0	
Arriv. Type		4						3	3	3	3	
Unit Ext.		3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time		2.0						2.0	2.0	2.0	2.0	
Ext of g		2.0						2.0	2.0	2.0	2.0	
Ped Min g		21.8						20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		269		311	584		27	26	101	29	23	13
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	P			
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P	P				Thru	P			
	Right						Right	P			
	Peds	X	X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		34.0	39.0					31.0			
Yellow		6.0	3.0					3.0			
All Red		0.0	2.0					2.0			

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1077	3313	0.32	0.32	30.2	C	30.2	C
Westbound								
L	472	1665	0.83	0.28	56.2	E		
T	2038	3095	0.36	0.66	4.3	A	22.3	C
Northbound								
LT	407	1576	0.16	0.26	35.3	D	36.9	D
R	403	1560	0.31	0.26	37.8	D		
Southbound								
LTR	397	1536	0.21	0.26	36.1	D	36.1	D

Intersection Delay = 26.1 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		269		311	584		27	26	101	29	23	13
% Heavy Veh		11		13	13		16	16	16	8	8	8
PHF		0.78		0.79	0.79		0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		86		98	185		8	8	31	9	7	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		345		394	739			65	123		83	
%InSharedLn												
Prop LTs		0.000			0.000			0.508			0.446	
Prop RTs	0.000			0.000			0.000		1.000	0.205		
Peds Bikes	0						10		0	10		0
Buses		0		0	0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.2						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		151	7		736	60	27	26	101	29	23	13
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	34.0	39.0				31.0		
Yellow	6.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	898	2762	0.23	0.32	29.1	C	29.1	C
Westbound								
TR	1941	2948	0.52	0.66	5.4	A	5.4	A
Northbound								
LT	407	1576	0.16	0.26	35.3	D	36.9	D
R	403	1560	0.31	0.26	37.8	D		
Southbound								
LTR	397	1536	0.21	0.26	36.1	D	36.1	D

Intersection Delay = 14.3 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		151	7		736	60	27	26	101	29	23	13
% Heavy Veh		30	30		8	8	16	16	16	8	8	8
PHF		0.78	0.78		0.79	0.79	0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		48	2		233	19	8	8	31	9	7	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		203			1008			65	123		83	
%InSharedLn												
Prop LTs		0.000			0.000			0.508			0.446	
Prop RTs		0.044			0.075			0.000	1.000		0.205	
Peds Bikes		10	0		10	0		10	0		10	0
Buses		0			0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave and Legett Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Legett Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	2	2	1	11	2	13	1	566	12	31	569	3
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		19.8						31.8			
Yellow		3.0						3.0			
All Red		1.2						1.2			

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	641	1942	0.02	0.33	13.6	B	13.6	B
Westbound								
LTR	538	1629	0.08	0.33	14.1	B	14.1	B
Northbound								
LTR	1782	3363	0.37	0.53	8.9	A	8.9	A
Southbound								
LTR	1711	3229	0.39	0.53	9.0	A	9.0	A

Intersection Delay = 9.1 (sec/veh) Intersection LOS = A

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave and Legett Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Legett Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	2	2	1	11	2	13	1	566	12	31	569	3
% Heavy Veh	2	2	2	23	23	23	16	16	16	8	8	8
PHF	0.50	0.50	0.50	0.59	0.59	0.59	0.87	0.87	0.87	0.91	0.91	0.91
PK 15 Vol	1	1	1	5	1	6	1	163	3	9	156	1
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0
Adj Flow		10			44			666			662	
%InSharedLn												
Prop LTs		0.400			0.432			0.002			0.051	
Prop RTs	0.200			0.500			0.021			0.005		
Peds Bikes	5		0	5			0		0	0		
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		19.7			3.2			17.0			3.2	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Hunts Point Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Volume	37	121	30	4	16	91	12	241	38	96	346	22
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P	P	
Thru	P				Thru	P	P	
Right	P				Right	P	P	
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0					59.0	21.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	482	2316	0.46	0.21	44.8	D	44.8	D
Westbound								
LTR	536	2573	0.24	0.21	40.7	D	40.7	D
Northbound								
L	348	708	0.04	0.49	16.0	B		
TR	1312	2669	0.22	0.49	17.8	B	17.7	B
Southbound								
L	788	1548	0.15	0.71	6.5	A		
T	1205	1701	0.35	0.71	7.6	A	7.2	A
R	1011	1428	0.03	0.71	5.3	A		

Intersection Delay = 20.3 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave & Hunts Point Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	37	121	30	4	16	91	12	241	38	96	346	22
% Heavy Veh	18	18	18	23	23	23	16	16	16	8	8	8
PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.95	0.95	0.95	0.82	0.82	0.82
PK 15 Vol	11	36	9	1	5	27	3	63	10	29	105	7
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900		1900	1900		1900	1900	1900
ParkExist			X						X			
NumPark			5						5			
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0
Adj Flow		224			131		13	294		117	422	27
%InSharedLn												
Prop LTs		0.196			0.038		1.000	0.000		1.000	0.000	
Prop RTs	0.161			0.817				0.136			0.000	1.000
Peds Bikes	20		0	20		0		20	0		20	0
Buses		0			0		0	0		0	0	0
%InProtPhase										0.0		0.0

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Arriv. Type		3			3		3	3		3	3	3
Unit Ext.		3.0			3.0		3.0	3.0		3.0	3.0	3.0
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ext of g		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ped Min g		18.3			20.9			18.4			18.4	

HCS2000: Unsignalized Intersections Release 4.1f

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	7	74	13	134	76	11	23	108	21	44	254	5
% Thrus Left Lane		50			50			50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LT	TR	LT	T	LT	TR
PHF	0.68	0.68	0.74	0.74	0.80	0.80	0.86	0.86
Flow Rate	64	73	232	65	95	67	198	152
% Heavy Veh	18	18	23	23	16	16	8	8
No. Lanes	2		2		2		2	
Opposing-Lanes	2		2		2		2	
Conflicting-lanes	2		2		2		2	
Geometry group	5		5		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	64	73	232	65	95	67	198	152
Left-Turn	10	0	181	0	28	0	51	0
Right-Turn	0	19	0	14	0	0	0	5
Prop. Left-Turns	0.2	0.0	0.8	0.0	0.3	0.0	0.3	0.0
Prop. Right-Turns	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Geometry Group	5		5		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.5		0.5		0.5		0.5	

hRT-adj	-0.7		-0.7		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.4	0.1	0.8	0.2	0.4	0.3	0.3	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	64	73	232	65	95	67	198	152
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06	0.06	0.21	0.06	0.08	0.06	0.18	0.14
hd, final value	6.84	6.58	6.95	6.41	6.79	6.65	6.37	6.22
x, final value	0.12	0.13	0.45	0.12	0.18	0.12	0.35	0.26
Move-up time, m	2.3		2.3		2.3		2.3	
Service Time	4.5	4.3	4.7	4.1	4.5	4.3	4.1	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	64	73	232	65	95	67	198	152
Service Time	4.5	4.3	4.7	4.1	4.5	4.3	4.1	3.9
Utilization, x	0.12	0.13	0.45	0.12	0.18	0.12	0.35	0.26
Dep. headway, hd	6.84	6.58	6.95	6.41	6.79	6.65	6.37	6.22
Capacity	314	323	482	315	345	317	448	402
Delay	10.48	10.29	15.18	9.95	10.97	10.28	12.47	11.12
LOS	B	B	C	A	B	B	B	B
Approach:								
Delay	10.38		14.04		10.69		11.89	
LOS	B		B		B		B	
Intersection Delay 12.14			Intersection LOS B					

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Randall Avenue

Inter.: Randall Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	9	277	1	5	275	58	87	127	4	114	162	19
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	31.8					19.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1138	2148	0.28	0.53	8.4	A	8.4	A
Westbound								
LTR	1040	1963	0.35	0.53	9.1	A	9.1	A
Northbound								
LTR	501	1518	0.46	0.33	19.0	B	19.0	B
Southbound								
LTR	571	1731	0.55	0.33	20.2	C	20.2	C

Intersection Delay = 13.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Randall Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Randall Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	9	277	1	5	275	58	87	127	4	114	162	19
% Heavy Veh	44	44	44	52	52	52	57	57	57	39	39	39
PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
PK 15 Vol	3	76	1	2	75	16	23	34	1	30	43	5
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0
Adj Flow		315			367			232			313	
%InSharedLn												
Prop LTs		0.032			0.014			0.401			0.387	
Prop RTs		0.003			0.172			0.017			0.064	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		18.2			18.2			18.0			18.5	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	17	47	7	47	107	28	5	109	12	17	249	75
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	43.0					67.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	847	2363	0.12	0.36	26.1	C	26.1	C
Westbound								
LTR	780	2176	0.27	0.36	28.2	C	28.2	C
Northbound								
LTR	1465	2623	0.10	0.56	12.5	B	12.5	B
Southbound								
LTR	1510	2704	0.23	0.56	13.8	B	13.8	B

Intersection Delay = 18.9 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	47	7	47	107	28	5	109	12	17	249	75
% Heavy Veh	18	18	18	23	23	23	16	16	16	8	8	8
PHF	0.70	0.70	0.70	0.87	0.87	0.87	0.89	0.89	0.89	0.97	0.97	0.97
PK 15 Vol	6	17	3	14	31	8	2	31	3	5	64	19
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0
Adj Flow		101			209			141			352	
%InSharedLn												
Prop LTs		0.238			0.258			0.043			0.051	
Prop RTs		0.099			0.153			0.092			0.219	
Peds Bikes		10	0		10	0		10	0		10	0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		20.3			18.0			18.3			18.3	

HCS2000: Unsignalized Intersections Release 4.1f

TWO-WAY STOP CONTROL SUMMARY

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		118			221	
Peak-Hour Factor, PHF		0.68			0.74	
Hourly Flow Rate, HFR		173			298	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			21			
Peak Hour Factor, PHF			0.80			
Hourly Flow Rate, HFR			26			
Percent Heavy Vehicles			16			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes			1			
Configuration			R			

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			
v (vph)					26			
C(m) (vph)					900			
v/c					0.03			
95% queue length					0.09			
Control Delay					9.1			
LOS					A			
Approach Delay				9.1				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1f

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		118			221	
Peak-Hour Factor, PHF		0.68			0.74	
Peak-15 Minute Volume		43			75	
Hourly Flow Rate, HFR		173			298	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			21			
Peak Hour Factor, PHF			0.80			
Peak-15 Minute Volume			7			
Hourly Flow Rate, HFR			26			
Percent Heavy Vehicles			16			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
RT Channelized?			No			
Lanes			1			
Configuration			R			

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	5	0

Data Analysis

Highway Capacity Software Analysis for the 2011 No Build Conditions PM Peak Period

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Volume					1163		54	281			675	12
Lane Width					11.0			12.0			10.0	
RTOR Vol												0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
T	2407	4068	0.52	0.59	9.4	A	9.4	A
Northbound								
LT	774	3381	0.51	0.32	35.2	D	35.2	D
Southbound								
TR	1060	4102	0.72	0.26	44.8	D	44.8	D

Intersection Delay = 24.8 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1163		54	281			675	12
% Heavy Veh					23		6	6			16	16
PHF					0.93		0.85	0.85			0.90	0.90
PK 15 Vol					313		16	83			188	3
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol												0
Adj Flow					1251			395			763	
%InSharedLn												
Prop LTs					0.000			0.162			0.000	
Prop RTs				0.000			0.000			0.017		
Peds Bikes										25	0	
Buses					0			0			9	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g											20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Volume					772	81	54	281			675	12
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	1821	3077	0.50	0.59	9.5	A	9.5	A
Northbound								
LT	774	3381	0.51	0.32	35.2	D	35.2	D
Southbound								
TR	1060	4102	0.72	0.26	44.8	D	44.8	D

Intersection Delay = 27.3 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisdiction: New York City
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					772	81	54	281			675	12
% Heavy Veh					9	9	6	6			16	16
PHF					0.93	0.93	0.85	0.85			0.90	0.90
PK 15 Vol					208	22	16	83			188	3
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0
Adj Flow					917			395			763	
%InSharedLn												
Prop LTs					0.000			0.162			0.000	
Prop RTs				0.095			0.000			0.017		
Peds Bikes				25	0					25	0	
Buses					13			0			9	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g					19.3						20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Volume	29	1073						306	240	487	188	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left		P			NB	Left				
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds			X	
WB	Left					SB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X		X	
NB	Right					EB	Right				
SB	Right					WB	Right				
Green			46.0					31.0	3.0	7.0	
Yellow			3.0					3.0	3.0	14.0	
All Red			2.0					2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	607	1583	0.06	0.38	21.4	C		
T	1216	3173	1.03	0.38	66.5	E	65.3	E
Westbound								
Northbound								
TR	843	3263	0.46	0.26	39.3	D	43.0	D
R	381	1473	0.67	0.26	48.8	D		
Southbound								
L	504	2876	1.07	0.32	107.1	F		
T	885	2723	0.24	0.32	30.2	C	85.7	F

Intersection Delay = 65.7 (sec/veh) Intersection LOS = E

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	29	1073						306	240	487	188	
% Heavy Veh	14	14						6	6	24	24	
PHF	0.86	0.86						0.85	0.85	0.90	0.90	
PK 15 Vol	8	312						90	71	135	52	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat	1900	1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			
Adj Flow	34	1248						388	254	541	209	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.000						0.073	1.000		0.000		
Peds Bikes				0			25					
Buses	0	0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0	0.0	0.0	0.0	
Arriv. Type	4	4						3	3	3	3	
Unit Ext.	3.0	3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time	2.0	2.0						2.0	2.0	2.0	2.0	
Ext of g	2.0	2.0						2.0	2.0	2.0	2.0	
Ped Min g					19.2			20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Volume		606	72					306	240	487	188	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds		X	
WB Left					SB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		X
NB Right					EB Right			
SB Right					WB Right			
Green		46.0				31.0	3.0	7.0
Yellow		3.0				3.0	3.0	14.0
All Red		2.0				2.0	2.0	4.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1258	3283	0.63	0.38	29.8	C	29.8	C
Westbound								
Northbound								
TR	843	3263	0.46	0.26	39.3	D	43.0	D
R	381	1473	0.67	0.26	48.8	D		
Southbound								
L	504	2876	1.07	0.32	107.1	F		
T	885	2723	0.24	0.32	30.2	C	85.7	F

Intersection Delay = 52.9 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		606	72					306	240	487	188	
% Heavy Veh		10	10					6	6	24	24	
PHF		0.86	0.86					0.85	0.85	0.90	0.90	
PK 15 Vol		176	21					90	71	135	52	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat		1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			
Adj Flow		789						388	254	541	209	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs		0.106						0.073	1.000		0.000	
Peds Bikes		25	0					25				
Buses		0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0						0.0	0.0	0.0	0.0	
Arriv. Type		4						3	3	3	3	
Unit Ext.		3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time		2.0						2.0	2.0	2.0	2.0	
Ext of g		2.0						2.0	2.0	2.0	2.0	
Ped Min g		21.8						20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP (Sat. Flow Rate, WBL=2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		783		206	482		19	51	30	122	93	31
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	P			
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P	P				Thru	P			
	Right						Right	P			
	Peds	X	X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		16.0	58.0					31.0			
Yellow		5.0	3.0					3.0			
All Red		0.0	2.0					2.0			

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1559	3226	0.60	0.48	19.5	B	19.5	B
Westbound								
L	204	1529	1.07	0.13	135.9	F		
T	1872	2843	0.27	0.66	3.9	A	43.4	D
Northbound								
LT	447	1730	0.18	0.26	35.5	D	35.1	D
R	441	1707	0.08	0.26	34.0	C		
Southbound								
LTR	350	1354	0.85	0.26	63.8	E	63.8	E

Intersection Delay = 35.1 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP (Sat. Flow Rate, WBL=2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		783		206	482		19	51	30	122	93	31
% Heavy Veh		14		23	23		6	6	6	24	24	24
PHF		0.84		0.94	0.94		0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		233		55	128		5	15	9	37	28	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0		1	2	0	0	1	1	0	1	0
LGConfig		T		L		T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		932		219	513			81	34		296	
%InSharedLn												
Prop LTs		0.000			0.000			0.272			0.497	
Prop RTs	0.000			0.000			0.000		1.000	0.125		
Peds Bikes	0						10	0		10	0	
Buses		0		0	0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.2						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		546	7		547	105	19	51	30	122	93	31
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	16.0	58.0				31.0		
Yellow	5.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1586	3282	0.41	0.48	16.7	B	16.7	B
Westbound								
TR	1880	2855	0.37	0.66	4.4	A	4.4	A
Northbound								
LT	447	1730	0.18	0.26	35.5	D	35.1	D
R	441	1707	0.08	0.26	34.0	C		
Southbound								
LTR	350	1354	0.85	0.26	63.8	E	63.8	E

Intersection Delay = 20.9 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		546	7		547	105	19	51	30	122	93	31
% Heavy Veh		10	10		10	10	6	6	6	24	24	24
PHF		0.84	0.84		0.94	0.94	0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		163	2		145	28	5	15	9	37	28	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		658			694			81	34		296	
%InSharedLn												
Prop LTs		0.000			0.000			0.272			0.497	
Prop RTs		0.012			0.161			0.000	1.000		0.125	
Peds		10			10			10			10	
Bikes			0			0			0			0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave and Legett Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Legett Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	1	1	1	19	1	31	1	431	42	60	514	1
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	19.8					31.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	639	1935	0.00	0.33	13.5	B	13.5	B
Westbound								
LTR	614	1860	0.12	0.33	14.4	B	14.4	B
Northbound								
LTR	1930	3642	0.30	0.53	8.3	A	8.3	A
Southbound								
LTR	1402	2645	0.44	0.53	9.7	A	9.7	A

Intersection Delay = 9.3 (sec/veh) Intersection LOS = A

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave and Legett Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Legett Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	1	1	1	19	1	31	1	431	42	60	514	1
% Heavy Veh	2	2	2	6	6	6	6	6	6	24	24	24
PHF	0.90	0.90	0.90	0.68	0.68	0.68	0.83	0.83	0.83	0.93	0.93	0.93
PK 15 Vol	1	1	1	7	1	11	1	130	13	16	138	1
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0
Adj Flow		3			75			571			619	
%InSharedLn												
Prop LTs		0.333			0.373			0.002			0.105	
Prop RTs	0.333			0.613			0.089			0.002		
Peds Bikes	5		0	5			0		0	0		
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		19.7			18.5			17.0			3.2	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Hunts Point Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Volume	49	147	64	7	41	116	36	381	69	45	204	11
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P	P		
	Thru	P					Thru	P	P		
	Right	P					Right	P	P		
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		25.0						59.0	21.0		
Yellow		3.0						3.0	3.0		
All Red		2.0						2.0	2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	517	2482	0.58	0.21	47.6	D	47.6	D
Westbound								
LTR	631	3028	0.29	0.21	41.2	D	41.2	D
Northbound								
L	488	992	0.08	0.49	16.5	B		
TR	1432	2912	0.35	0.49	19.4	B	19.2	B
Southbound								
L	591	1351	0.09	0.71	7.7	A		
T	1049	1481	0.24	0.71	6.7	A	6.8	A
R	881	1244	0.01	0.71	5.2	A		

Intersection Delay = 25.7 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave & Hunts Point Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build
Project ID:	Hunts Point WPCP
E/W St:	Garrison Avenue
N/S St:	Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	49	147	64	7	41	116	36	381	69	45	204	11
% Heavy Veh	6	6	6	6	6	6	6	6	6	24	24	24
PHF	0.86	0.86	0.86	0.89	0.89	0.89	0.90	0.90	0.90	0.82	0.82	0.82
PK 15 Vol	14	43	19	2	12	33	10	106	19	14	62	3
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900		1900	1900		1900	1900	1900
ParkExist			X						X			
NumPark			5						5			
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0
Adj Flow		302			184		40	500		55	249	13
%InSharedLn												
Prop LTs		0.189			0.043		1.000	0.000		1.000	0.000	
Prop RTs	0.245			0.707				0.154			0.000	1.000
Peds Bikes	20		0	20		0	20		0	20		0
Buses		0			0		0	0		0	0	0
%InProtPhase										0.0		0.0

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Arriv. Type		3			3		3	3		3	3	3
Unit Ext.		3.0			3.0		3.0	3.0		3.0	3.0	3.0
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ext of g		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ped Min g		18.3			20.9			18.4			18.4	

HCS2000: Unsignalized Intersections Release 4.1f

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	6	89	11	82	91	37	15	27	73	50	220	9
% Thrus Left Lane		50			50			50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LT	TR	LT	T	LT	TR
PHF	0.79	0.79	0.83	0.83	0.76	0.76	0.86	0.86
Flow Rate	62	69	152	99	36	18	185	137
% Heavy Veh	6	6	6	6	6	6	24	24
No. Lanes	2		2		2		2	
Opposing-Lanes	2		2		2		2	
Conflicting-lanes	2		2		2		2	
Geometry group	5		5		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	62	69	152	99	36	18	185	137
Left-Turn	7	0	98	0	19	0	58	0
Right-Turn	0	13	0	44	0	0	0	10
Prop. Left-Turns	0.1	0.0	0.6	0.0	0.5	0.0	0.3	0.0
Prop. Right-Turns	0.0	0.2	0.0	0.4	0.0	0.0	0.0	0.1
Prop. Heavy Vehicle	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Geometry Group	5		5		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.5		0.5		0.5		0.5	

hRT-adj	-0.7		-0.7		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.2	-0.0	0.4	-0.2	0.4	0.1	0.6	0.4

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	62	69	152	99	36	18	185	137
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06	0.06	0.14	0.09	0.03	0.02	0.16	0.12
hd, final value	6.05	5.86	6.16	5.53	6.35	6.08	6.18	5.97
x, final value	0.10	0.11	0.26	0.15	0.06	0.03	0.32	0.23
Move-up time, m	2.3		2.3		2.3		2.3	
Service Time	3.7	3.6	3.9	3.2	4.0	3.8	3.9	3.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	62	69	152	99	36	18	185	137
Service Time	3.7	3.6	3.9	3.2	4.0	3.8	3.9	3.7
Utilization, x	0.10	0.11	0.26	0.15	0.06	0.03	0.32	0.23
Dep. headway, hd	6.05	5.86	6.16	5.53	6.35	6.08	6.18	5.97
Capacity	312	319	402	349	286	268	435	387
Delay	9.45	9.30	11.01	9.21	9.48	8.98	11.74	10.42
LOS	A	A	B	A	A	A	B	B
Approach:								
Delay	9.37		10.30		9.31		11.18	
LOS	A		B		A		B	
Intersection Delay 10.44			Intersection LOS B					

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Randall Avenue

Inter.: Randall Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	8	231	49	11	246	64	19	25	13	107	153	11
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	31.8					19.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1204	2272	0.25	0.53	8.1	A	8.1	A
Westbound								
LTR	1280	2415	0.27	0.53	8.3	A	8.3	A
Northbound								
LTR	656	1989	0.11	0.33	14.3	B	14.3	B
Southbound								
LTR	628	1902	0.51	0.33	19.2	B	19.2	B

Intersection Delay = 12.0 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Randall Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build

Project ID: Hunts Point WPCP
E/W St: Randall Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	231	49	11	246	64	19	25	13	107	153	11
% Heavy Veh	33	33	33	22	22	22	31	31	31	36	36	36
PHF	0.96	0.96	0.96	0.93	0.93	0.93	0.79	0.79	0.79	0.84	0.84	0.84
PK 15 Vol	2	60	13	3	66	17	6	8	4	32	46	3
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0
Adj Flow		300			346			72			322	
%InSharedLn												
Prop LTs		0.027			0.035			0.333			0.394	
Prop RTs		0.170			0.199			0.222			0.040	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		18.2			18.2			18.0			18.5	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 No Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	30	86	4	43	86	35	4	35	31	30	232	44
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	43.0					67.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	931	2598	0.16	0.36	26.6	C	26.6	C
Westbound								
LTR	882	2461	0.22	0.36	27.4	C	27.4	C
Northbound								
LTR	1508	2701	0.05	0.56	12.1	B	12.1	B
Southbound								
LTR	1303	2334	0.30	0.56	14.6	B	14.6	B

Intersection Delay = 19.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 No Build
Project ID:	Hunts Point WPCP
E/W St:	Garrison Avenue
N/S St:	Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	30	86	4	43	86	35	4	35	31	30	232	44
% Heavy Veh	6	6	6	6	6	6	6	6	6	24	24	24
PHF	0.79	0.79	0.79	0.85	0.85	0.85	0.85	0.85	0.85	0.79	0.79	0.79
PK 15 Vol	9	27	1	13	25	10	1	10	9	9	73	14
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0
Adj Flow		152			193			82			388	
%InSharedLn												
Prop LTs		0.250			0.264			0.061			0.098	
Prop RTs		0.033			0.212			0.439			0.144	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		20.3			18.0			18.3			18.3	

HCS2000: Unsignalized Intersections Release 4.1f

TWO-WAY STOP CONTROL SUMMARY

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		139			210	
Peak-Hour Factor, PHF		0.79			0.83	
Hourly Flow Rate, HFR		175			253	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			73			
Peak Hour Factor, PHF			0.76			
Hourly Flow Rate, HFR			96			
Percent Heavy Vehicles			6			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes		1				
Configuration		R				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			
v (vph)					96			
C(m) (vph)					930			
v/c					0.10			
95% queue length					0.34			
Control Delay					9.3			
LOS					A			
Approach Delay				9.3				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1f

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 No Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		139			210	
Peak-Hour Factor, PHF		0.79			0.83	
Peak-15 Minute Volume		44			63	
Hourly Flow Rate, HFR		175			253	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			73			
Peak Hour Factor, PHF			0.76			
Peak-15 Minute Volume			24			
Hourly Flow Rate, HFR			96			
Percent Heavy Vehicles			6			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
RT Channelized?			No			
Lanes			1			
Configuration			R			

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	5	0

Data Analysis

Highway Capacity Software Analysis for the 2011 Build Conditions

AM Peak Period

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Volume					1491		29	179			736	17
Lane Width					11.0			12.0			10.0	
RTOR Vol												0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left	P	P		
Thru					Thru	P	P		
Right					Right				
Peds					Peds	X			
WB Left					SB Left				
Thru		P			Thru	P			
Right					Right	P			
Peds		X			Peds	X			
NB Right					EB Right				
SB Right					WB Right				
Green		71.0				31.0	3.0		
Yellow		3.0				3.0	3.0		
All Red		2.0				2.0	2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
T	2620	4428	0.66	0.59	11.1	B	11.1	B
Northbound								
LT	727	3094	0.45	0.32	34.0	C	34.0	C
Southbound								
TR	1151	4454	0.77	0.26	46.2	D	46.2	D

Intersection Delay = 24.2 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1491		29	179			736	17
% Heavy Veh					13		16	16			7	7
PHF					0.86		0.64	0.64			0.85	0.85
PK 15 Vol					433		11	70			216	5
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol												0
Adj Flow					1734			325			886	
%InSharedLn												
Prop LTs					0.000			0.138			0.000	
Prop RTs				0.000			0.000			0.023		
Peds Bikes										25	0	
Buses					0			0			7	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g											20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Volume					1172	92	29	179			736	17
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	1869	3159	0.79	0.59	14.6	B	14.6	B
Northbound								
LT	727	3094	0.45	0.32	34.0	C	34.0	C
Southbound								
TR	1151	4454	0.77	0.26	46.2	D	46.2	D

Intersection Delay = 27.4 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1172	92	29	179			736	17
% Heavy Veh					7	7	16	16			7	7
PHF					0.86	0.86	0.64	0.64			0.85	0.85
PK 15 Vol					341	27	11	70			216	5
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0
Adj Flow					1470			325			886	
%InSharedLn												
Prop LTs					0.000			0.138			0.000	
Prop RTs				0.073			0.000			0.023		
Peds Bikes				25	0					25	0	
Buses					11			0			7	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g					19.3						20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Volume	17	494						191	178	356	380	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left				
	Thru	P					Thru	P			
	Right						Right	P			
	Peds	X					Peds			X	
WB	Left					SB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X		X	
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		46.0						31.0	3.0	7.0	
Yellow		3.0						3.0	3.0	14.0	
All Red		2.0						2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	623	1626	0.03	0.38	21.2	C		
T	1249	3259	0.45	0.38	26.4	C	26.2	C
Westbound								
Northbound								
TR	769	2976	0.42	0.26	38.8	D	44.8	D
R	348	1346	0.72	0.26	52.6	D		
Southbound								
L	445	3137	0.94	0.32	76.3	E		
T	1016	3126	0.44	0.32	33.3	C	54.1	D

Intersection Delay = 43.4 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

Michael Tyneic
AKRF, Inc

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	494						191	178	356	380	
% Heavy Veh	11	11						16	16	8	8	
PHF	0.87	0.87						0.64	0.64	0.85	0.85	
PK 15 Vol	5	142						75	70	105	112	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat	1900	1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			
Adj Flow	20	568						326	250	419	447	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.000						0.085	1.000		0.000		
Peds Bikes				0			25					
Buses	0	0					0	0		0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0	0.0	0.0	0.0	
Arriv. Type	4	4						3	3	3	3	
Unit Ext.	3.0	3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time	2.0	2.0						2.0	2.0	2.0	2.0	
Ext of g	2.0	2.0						2.0	2.0	2.0	2.0	
Ped Min g				19.2				20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Volume		246	100					191	178	356	380	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru		P			Thru	P			
Right		P			Right	P			
Peds		X			Peds			X	
WB Left					SB Left	P	P		
Thru					Thru	P	P		
Right					Right				
Peds					Peds	X		X	
NB Right					EB Right				
SB Right					WB Right				
Green		46.0				31.0	3.0	7.0	
Yellow		3.0				3.0	3.0	14.0	
All Red		2.0				2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1032	2691	0.39	0.38	25.5	C	25.5	C
Westbound								
Northbound								
TR	769	2976	0.42	0.26	38.8	D	44.8	D
R	348	1346	0.72	0.26	52.6	D		
Southbound								
L	445	3137	0.94	0.32	76.3	E		
T	1016	3126	0.44	0.32	33.3	C	54.1	D

Intersection Delay = 45.0 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		246	100					191	178	356	380	
% Heavy Veh		30	30					16	16	8	8	
PHF		0.87	0.87					0.64	0.64	0.85	0.85	
PK 15 Vol		71	29					75	70	105	112	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat		1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			
Adj Flow		398						326	250	419	447	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.289						0.085	1.000		0.000		
Peds Bikes	25	0					25					
Buses		0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0						0.0	0.0	0.0	0.0	
Arriv. Type		4						3	3	3	3	
Unit Ext.		3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time		2.0						2.0	2.0	2.0	2.0	
Ext of g		2.0						2.0	2.0	2.0	2.0	
Ped Min g		21.8						20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		269		398	584		27	26	106	29	29	13
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	P			
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P	P				Thru	P			
	Right						Right	P			
	Peds	X	X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		34.0	39.0					31.0			
Yellow		6.0	3.0					3.0			
All Red		0.0	2.0					2.0			

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1077	3313	0.32	0.32	30.2	C	30.2	C
Westbound								
L	472	1665	1.07	0.28	103.6	F		
T	2038	3095	0.36	0.66	4.3	A	44.6	D
Northbound								
LT	407	1576	0.16	0.26	35.3	D	37.1	D
R	403	1560	0.32	0.26	38.1	D		
Southbound								
LTR	398	1541	0.23	0.26	36.4	D	36.4	D

Intersection Delay = 40.8 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		269		398	584		27	26	106	29	29	13
% Heavy Veh		11		13	13		16	16	16	8	8	8
PHF		0.78		0.79	0.79		0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		86		126	185		8	8	32	9	9	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0		1	2	0	0	1	1	0	1	0
LGConfig		T		L		T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		345		504	739			65	129		91	
%InSharedLn												
Prop LTs		0.000			0.000			0.508			0.407	
Prop RTs	0.000			0.000			0.000		1.000	0.187		
Peds Bikes	0						10		0	10		0
Buses		0		0	0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.2						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		151	7		736	60	27	26	106	29	29	13
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	34.0	39.0				31.0		
Yellow	6.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	898	2762	0.23	0.32	29.1	C	29.1	C
Westbound								
TR	1941	2948	0.52	0.66	5.4	A	5.4	A
Northbound								
LT	407	1576	0.16	0.26	35.3	D	37.1	D
R	403	1560	0.32	0.26	38.1	D		
Southbound								
LTR	398	1541	0.23	0.26	36.4	D	36.4	D

Intersection Delay = 14.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		151	7		736	60	27	26	106	29	29	13
% Heavy Veh		30	30		8	8	16	16	16	8	8	8
PHF		0.78	0.78		0.79	0.79	0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		48	2		233	19	8	8	32	9	9	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		203			1008			65	129		91	
%InSharedLn												
Prop LTs		0.000			0.000			0.508			0.407	
Prop RTs		0.044			0.075			0.000	1.000		0.187	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave and Legett Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Legett Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	2	2	1	11	2	13	1	569	12	31	616	3
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	19.8					31.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	641	1942	0.02	0.33	13.6	B	13.6	B
Westbound								
LTR	538	1629	0.08	0.33	14.1	B	14.1	B
Northbound								
LTR	1782	3363	0.38	0.53	8.9	A	8.9	A
Southbound								
LTR	1717	3240	0.42	0.53	9.2	A	9.2	A

Intersection Delay = 9.3 (sec/veh) Intersection LOS = A

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave and Legett Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Legett Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	2	2	1	11	2	13	1	569	12	31	616	3
% Heavy Veh	2	2	2	23	23	23	16	16	16	8	8	8
PHF	0.50	0.50	0.50	0.59	0.59	0.59	0.87	0.87	0.87	0.91	0.91	0.91
PK 15 Vol	1	1	1	5	1	6	1	164	3	9	169	1
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0
Adj Flow		10			44			669			714	
%InSharedLn												
Prop LTs		0.400			0.432			0.001			0.048	
Prop RTs		0.200			0.500			0.021			0.004	
Peds Bikes	5		0	5			0		0	0		
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		19.7			3.2			17.0			3.2	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Hunts Point Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Volume	37	121	30	4	16	91	12	241	38	96	362	22
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P	P	
Thru	P				Thru	P	P	
Right	P				Right	P	P	
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0					59.0	21.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	482	2316	0.46	0.21	44.8	D	44.8	D
Westbound								
LTR	536	2573	0.24	0.21	40.7	D	40.7	D
Northbound								
L	338	687	0.04	0.49	16.0	B		
TR	1312	2669	0.22	0.49	17.8	B	17.7	B
Southbound								
L	788	1548	0.15	0.71	6.5	A		
T	1205	1701	0.37	0.71	7.8	A	7.4	A
R	1011	1428	0.03	0.71	5.3	A		

Intersection Delay = 20.2 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave & Hunts Point Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	37	121	30	4	16	91	12	241	38	96	362	22
% Heavy Veh	18	18	18	23	23	23	16	16	16	8	8	8
PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.95	0.95	0.95	0.82	0.82	0.82
PK 15 Vol	11	36	9	1	5	27	3	63	10	29	110	7
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900		1900	1900		1900	1900	1900
ParkExist			X						X			
NumPark			5						5			
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0
Adj Flow		224			131		13	294		117	441	27
%InSharedLn												
Prop LTs		0.196			0.038		1.000	0.000		1.000	0.000	
Prop RTs	0.161			0.817			0.136			0.000		1.000
Peds Bikes	20		0	20		0	20		0	20		0
Buses		0			0		0	0		0	0	0
%InProtPhase										0.0		0.0

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Arriv. Type		3			3		3	3		3	3	3
Unit Ext.		3.0			3.0		3.0	3.0		3.0	3.0	3.0
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ext of g		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ped Min g		18.3			20.9			18.4			18.4	

HCS2000: Unsignalized Intersections Release 4.1f

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	7	74	13	134	76	11	23	113	21	44	347	5
% Thrus Left Lane		50			50			50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LT	TR	LT	T	LT	TR
PHF	0.68	0.68	0.74	0.74	0.80	0.80	0.86	0.86
Flow Rate	64	73	232	65	97	71	252	207
% Heavy Veh	18	18	23	23	16	16	8	8
No. Lanes	2		2		2		2	
Opposing-Lanes	2		2		2		2	
Conflicting-lanes	2		2		2		2	
Geometry group	5		5		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	64	73	232	65	97	71	252	207
Left-Turn	10	0	181	0	28	0	51	0
Right-Turn	0	19	0	14	0	0	0	5
Prop. Left-Turns	0.2	0.0	0.8	0.0	0.3	0.0	0.2	0.0
Prop. Right-Turns	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Geometry Group	5		5		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.5		0.5		0.5		0.5	

hRT-adj	-0.7		-0.7		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.4	0.1	0.8	0.2	0.4	0.3	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	64	73	232	65	97	71	252	207
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06	0.06	0.21	0.06	0.09	0.06	0.22	0.18
hd, final value	7.16	6.90	7.26	6.72	7.01	6.87	6.42	6.30
x, final value	0.13	0.14	0.47	0.12	0.19	0.14	0.45	0.36
Move-up time, m	2.3		2.3		2.3		2.3	
Service Time	4.9	4.6	5.0	4.4	4.7	4.6	4.1	4.0

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	64	73	232	65	97	71	252	207
Service Time	4.9	4.6	5.0	4.4	4.7	4.6	4.1	4.0
Utilization, x	0.13	0.14	0.47	0.12	0.19	0.14	0.45	0.36
Dep. headway, hd	7.16	6.90	7.26	6.72	7.01	6.87	6.42	6.30
Capacity	314	323	481	315	347	321	502	457
Delay	10.91	10.73	16.17	10.34	11.34	10.64	14.26	12.55
LOS	B	B	C	B	B	B	B	B
Approach:								
Delay	10.81		14.90		11.04		13.49	
LOS	B		B		B		B	
Intersection Delay 13.15			Intersection LOS B					

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Randall Avenue

Inter.: Randall Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	9	277	48	5	275	58	90	132	4	114	255	19
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	31.8					19.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
	Capacity		v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LTR	1115	2104	0.33	0.53	8.8	A	8.8	A
Westbound								
LTR	1040	1962	0.35	0.53	9.1	A	9.1	A
Northbound								
LTR	481	1458	0.50	0.33	19.8	B	19.8	B
Southbound								
LTR	595	1803	0.69	0.33	24.0	C	24.0	C

Intersection Delay = 15.3 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Randall Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Randall Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	9	277	48	5	275	58	90	132	4	114	255	19
% Heavy Veh	44	44	44	52	52	52	57	57	57	39	39	39
PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
PK 15 Vol	3	76	13	2	75	16	24	35	1	30	68	5
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0
Adj Flow		367			367			240			412	
%InSharedLn												
Prop LTs		0.027			0.014			0.400			0.294	
Prop RTs		0.144			0.172			0.017			0.049	
Peds Bikes		10	0		10	0		10	0		10	0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		18.2			18.2			18.0			18.5	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	17	47	7	47	107	28	5	114	12	17	342	75
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	43.0					67.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	847	2363	0.12	0.36	26.1	C	26.1	C
Westbound								
LTR	780	2176	0.27	0.36	28.2	C	28.2	C
Northbound								
LTR	1462	2619	0.10	0.56	12.5	B	12.5	B
Southbound								
LTR	1526	2733	0.29	0.56	14.5	B	14.5	B

Intersection Delay = 18.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Garrison Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build
Project ID:	Hunts Point WPCP
E/W St:	Garrison Avenue
N/S St:	Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	47	7	47	107	28	5	114	12	17	342	75
% Heavy Veh	18	18	18	23	23	23	16	16	16	8	8	8
PHF	0.70	0.70	0.70	0.87	0.87	0.87	0.89	0.89	0.89	0.97	0.97	0.97
PK 15 Vol	6	17	3	14	31	8	2	32	3	5	88	19
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0
Adj Flow		101			209			147			448	
%InSharedLn												
Prop LTs		0.238			0.258			0.041			0.040	
Prop RTs	0.099			0.153			0.088			0.172		
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		20.3			18.0			18.3			18.3	

HCS2000: Unsignalized Intersections Release 4.1f

TWO-WAY STOP CONTROL SUMMARY

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		118			221	
Peak-Hour Factor, PHF		0.68			0.74	
Hourly Flow Rate, HFR		173			298	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			21			
Peak Hour Factor, PHF			0.80			
Hourly Flow Rate, HFR			26			
Percent Heavy Vehicles			16			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes		1				
Configuration		R				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			
v (vph)					26			
C(m) (vph)					900			
v/c					0.03			
95% queue length					0.09			
Control Delay					9.1			
LOS					A			
Approach Delay				9.1				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1f

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: AM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		118			221	
Peak-Hour Factor, PHF		0.68			0.74	
Peak-15 Minute Volume		43			75	
Hourly Flow Rate, HFR		173			298	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			21			
Peak Hour Factor, PHF			0.80			
Peak-15 Minute Volume			7			
Hourly Flow Rate, HFR			26			
Percent Heavy Vehicles			16			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
RT Channelized?			No			
Lanes			1			
Configuration			R			

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	5	0

Data Analysis

Highway Capacity Software Analysis for the 2011 Build Conditions PM Peak Period

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Volume					1168		54	297			675	12
Lane Width					11.0			12.0			10.0	
RTOR Vol												0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		
WB Left					SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		71.0				31.0	3.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				2.0	2.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
T	2407	4068	0.52	0.59	9.4	A	9.4	A
Northbound								
LT	777	3382	0.53	0.32	35.6	D	35.6	D
Southbound								
TR	1060	4102	0.72	0.26	44.8	D	44.8	D

Intersection Delay = 25.0 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					1168		54	297			675	12
% Heavy Veh					23		6	6			16	16
PHF					0.93		0.85	0.85			0.90	0.90
PK 15 Vol					314		16	87			188	3
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	3	0	0	2	0	0	3	0
LGConfig					T			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol												0
Adj Flow					1256			413			763	
%InSharedLn												
Prop LTs					0.000			0.155			0.000	
Prop RTs				0.000			0.000			0.017		
Peds Bikes										25	0	
Buses					0			0			9	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g											20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Volume					772	81	54	297			675	12
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X			
WB	Left					SB	Left				
	Thru		P				Thru	P			
	Right		P				Right	P			
	Peds		X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green			71.0					31.0	3.0		
Yellow			3.0					3.0	3.0		
All Red			2.0					2.0	2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	1821	3077	0.50	0.59	9.5	A	9.5	A
Northbound								
LT	777	3382	0.53	0.32	35.6	D	35.6	D
Southbound								
TR	1060	4102	0.72	0.26	44.8	D	44.8	D

Intersection Delay = 27.5 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-NB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					772	81	54	297			675	12
% Heavy Veh					9	9	6	6			16	16
PHF					0.93	0.93	0.85	0.85			0.90	0.90
PK 15 Vol					208	22	16	87			188	3
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat					1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	0	2	0	0	2	0	0	3	0
LGConfig					TR			LT			TR	
Lane Width					11.0			12.0			10.0	
RTOR Vol						0						0
Adj Flow					917			413			763	
%InSharedLn												
Prop LTs					0.000			0.155			0.000	
Prop RTs				0.095			0.000			0.017		
Peds Bikes				25	0					25	0	
Buses					13			0			9	
%InProtPhase							0.0					

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					4			3			3	
Unit Ext.					3.0			3.0			3.0	
I Factor					1.000			1.000			1.000	
Lost Time					2.0			2.0			2.0	
Ext of g					2.0			2.0			2.0	
Ped Min g					19.3						20.1	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Volume	29	1086						322	240	487	188	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left		P			NB	Left				
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds			X	
WB	Left					SB	Left	P	P		
	Thru						Thru	P	P		
	Right						Right				
	Peds						Peds	X		X	
NB	Right					EB	Right				
SB	Right					WB	Right				
Green			46.0					31.0	3.0	7.0	
Yellow			3.0					3.0	3.0	14.0	
All Red			2.0					2.0	2.0	4.0	

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	607	1583	0.06	0.38	21.4	C		
T	1216	3173	1.04	0.38	70.1	E	68.9	E
Westbound								
Northbound								
TR	843	3265	0.48	0.26	39.7	D	43.2	D
R	381	1473	0.67	0.26	48.8	D		
Southbound								
L	504	2876	1.07	0.32	107.3	F		
T	885	2723	0.24	0.32	30.2	C	85.8	F

Intersection Delay = 67.3 (sec/veh) Intersection LOS = E

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Main N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	29	1086					322	240		487	188	
% Heavy Veh	14	14					6	6		24	24	
PHF	0.86	0.86					0.85	0.85		0.90	0.90	
PK 15 Vol	8	316					95	71		135	52	
Hi Ln Vol												
% Grade		0					0				0	
Ideal Sat	1900	1900					1900	1900		1900	1900	
ParkExist												
NumPark												
No. Lanes	1	2	0	0	0	0	0	2	1	2	2	0
LGConfig	L	T						TR	R	L	T	
Lane Width	12.0	12.0						11.0	11.0	11.0	10.0	
RTOR Vol									0			
Adj Flow	34	1263						407	254	541	209	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs		0.000						0.069	1.000		0.000	
Peds Bikes					0			25				
Buses	0	0						0	0	0	0	
%InProtPhase											0.0	

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0	0.0	0.0	0.0	
Arriv. Type	4	4						3	3	3	3	
Unit Ext.	3.0	3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time	2.0	2.0						2.0	2.0	2.0	2.0	
Ext of g	2.0	2.0						2.0	2.0	2.0	2.0	
Ped Min g					19.2			20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service

Inter.: Bruckner Blvd & Hunts Point Av
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build
N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Volume		680	72					322	240	487	188	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds		X	
WB Left					SB Left	P	P	
Thru					Thru	P	P	
Right					Right			
Peds					Peds	X		X
NB Right					EB Right			
SB Right					WB Right			
Green		46.0				31.0	3.0	7.0
Yellow		3.0				3.0	3.0	14.0
All Red		2.0				2.0	2.0	4.0

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1261	3289	0.69	0.38	31.5	C	31.5	C
Westbound								
Northbound								
TR	843	3265	0.48	0.26	39.7	D	43.2	D
R	381	1473	0.67	0.26	48.8	D		
Southbound								
L	504	2876	1.07	0.32	107.3	F		
T	885	2723	0.24	0.32	30.2	C	85.8	F

Intersection Delay = 52.7 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Hunts Point Av
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP-SB
E/W St: Bruckner Blvd-Service N/S St: Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		680	72					322	240	487	188	
% Heavy Veh		10	10					6	6	24	24	
PHF		0.86	0.86					0.85	0.85	0.90	0.90	
PK 15 Vol		198	21					95	71	135	52	
Hi Ln Vol												
% Grade		0						0			0	
Ideal Sat		1900						1900	1900	1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	0	0	0	2	1	2	2	0
LGConfig		TR						TR	R	L	T	
Lane Width		12.5						11.0	11.0	11.0	10.0	
RTOR Vol			0						0			
Adj Flow		875						407	254	541	209	
%InSharedLn									10			
Prop LTs		0.000						0.000		1.000	0.000	
Prop RTs	0.096						0.069		1.000		0.000	
Peds Bikes	25		0				25					
Buses		0						0	0	0	0	
%InProtPhase										0.0		

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0						0.0	0.0	0.0	0.0	
Arriv. Type		4						3	3	3	3	
Unit Ext.		3.0						3.0	3.0	3.0	3.0	
I Factor		1.000						1.000			1.000	
Lost Time		2.0						2.0	2.0	2.0	2.0	
Ext of g		2.0						2.0	2.0	2.0	2.0	
Ped Min g		21.8						20.4				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP (Sat. Flow Rate, WBL=2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		783		211	482		19	57	117	122	93	31
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left	P				SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	16.0	58.0				31.0		
Yellow	5.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1559	3226	0.60	0.48	19.5	B	19.5	B
Westbound								
L	204	1529	1.10	0.13	143.7	F		
T	1872	2843	0.27	0.66	3.9	A	46.4	D
Northbound								
LT	447	1730	0.20	0.26	35.8	D	36.9	D
R	441	1707	0.30	0.26	37.6	D		
Southbound								
LTR	350	1354	0.85	0.26	63.8	E	63.8	E

Intersection Delay = 36.3 (sec/veh) Intersection LOS = D

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP (Sat. Flow Rate, WBL=2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		783		211	482		19	57	117	122	93	31
% Heavy Veh		14		23	23		6	6	6	24	24	24
PHF		0.84		0.94	0.94		0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		233		56	128		5	16	34	37	28	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0		1	2	0	0	1	1	0	1	0
LGConfig		T		L		T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		932		224	513			88	134		296	
%InSharedLn												
Prop LTs		0.000			0.000			0.250			0.497	
Prop RTs	0.000			0.000			0.000		1.000	0.125		
Peds Bikes	0						10		0	10		0
Buses		0		0	0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.2						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		546	7		547	105	19	57	117	122	93	31
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	16.0	58.0				31.0		
Yellow	5.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1586	3282	0.41	0.48	16.7	B	16.7	B
Westbound								
TR	1880	2855	0.37	0.66	4.4	A	4.4	A
Northbound								
LT	447	1730	0.20	0.26	35.8	D	36.9	D
R	441	1707	0.30	0.26	37.6	D		
Southbound								
LTR	350	1354	0.85	0.26	63.8	E	63.8	E

Intersection Delay = 21.9 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		546	7		547	105	19	57	117	122	93	31
% Heavy Veh		10	10		10	10	6	6	6	24	24	24
PHF		0.84	0.84		0.94	0.94	0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		163	2		145	28	5	16	34	37	28	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		658			694			88	134		296	
%InSharedLn												
Prop LTs		0.000			0.000			0.250			0.497	
Prop RTs		0.012			0.161			0.000	1.000		0.125	
Peds		10	0		10	0		10	0		10	0
Bikes												
Buses		0			0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave and Legett Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Legett Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	1	1	1	19	1	31	1	478	42	60	517	1
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	19.8					31.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	639	1935	0.00	0.33	13.5	B	13.5	B
Westbound								
LTR	614	1860	0.12	0.33	14.4	B	14.4	B
Northbound								
LTR	1933	3647	0.32	0.53	8.5	A	8.5	A
Southbound								
LTR	1389	2620	0.45	0.53	9.7	A	9.7	A

Intersection Delay = 9.4 (sec/veh) Intersection LOS = A

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave and Legett Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Legett Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	1	1	1	19	1	31	1	478	42	60	517	1
% Heavy Veh	2	2	2	6	6	6	6	6	6	24	24	24
PHF	0.90	0.90	0.90	0.68	0.68	0.68	0.83	0.83	0.83	0.93	0.93	0.93
PK 15 Vol	1	1	1	7	1	11	1	144	13	16	139	1
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	0	1	0	0	1	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		16.0			16.0			16.0			14.0	
RTOR Vol			0			0			0			0
Adj Flow		3			75			628			622	
%InSharedLn												
Prop LTs		0.333			0.373			0.002			0.105	
Prop RTs		0.333			0.613			0.081			0.002	
Peds Bikes	5		0	5			0		0	0		
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		19.7			18.5			17.0			3.2	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Hunts Point Ave
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Hunts Point Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Volume	49	147	64	7	41	116	36	397	69	45	204	11
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P	P		
	Thru	P					Thru	P	P		
	Right	P					Right	P	P		
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		25.0						59.0	21.0		
Yellow		3.0						3.0	3.0		
All Red		2.0						2.0	2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	517	2482	0.58	0.21	47.6	D	47.6	D
Westbound								
LTR	631	3028	0.29	0.21	41.2	D	41.2	D
Northbound								
L	488	992	0.08	0.49	16.5	B		
TR	1433	2914	0.36	0.49	19.6	B	19.3	B
Southbound								
L	583	1351	0.09	0.71	7.9	A		
T	1049	1481	0.24	0.71	6.7	A	6.8	A
R	881	1244	0.01	0.71	5.2	A		

Intersection Delay = 25.6 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave & Hunts Point Ave
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build
Project ID:	Hunts Point WPCP
E/W St:	Garrison Avenue
N/S St:	Hunts Point Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	49	147	64	7	41	116	36	397	69	45	204	11
% Heavy Veh	6	6	6	6	6	6	6	6	6	24	24	24
PHF	0.86	0.86	0.86	0.89	0.89	0.89	0.90	0.90	0.90	0.82	0.82	0.82
PK 15 Vol	14	43	19	2	12	33	10	110	19	14	62	3
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900		1900	1900		1900	1900	1900
ParkExist			X						X			
NumPark			5						5			
No. Lanes	0	2	0	0	2	0	1	2	0	1	1	1
LGConfig		LTR			LTR		L	TR		L	T	R
Lane Width		11.0			14.5		10.0	10.0		10.0	11.0	11.0
RTOR Vol			0			0			0			0
Adj Flow		302			184		40	518		55	249	13
%InSharedLn												
Prop LTs		0.189			0.043		1.000	0.000		1.000	0.000	
Prop RTs	0.245			0.707			0.149			0.000		1.000
Peds Bikes	20		0	20		0	20		0	20		0
Buses		0			0		0	0		0	0	0
%InProtPhase										0.0		0.0

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Arriv. Type		3			3		3	3		3	3	3
Unit Ext.		3.0			3.0		3.0	3.0		3.0	3.0	3.0
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ext of g		2.0			2.0		2.0	2.0		2.0	2.0	2.0
Ped Min g		18.3			20.9			18.4			18.4	

HCS2000: Unsignalized Intersections Release 4.1f

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	6	89	11	82	91	37	15	120	73	50	225	9
% Thrus Left Lane		50			50			50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LT	TR	LT	T	LT	TR
PHF	0.79	0.79	0.83	0.83	0.76	0.76	0.86	0.86
Flow Rate	62	69	152	99	97	78	188	141
% Heavy Veh	6	6	6	6	6	6	24	24
No. Lanes	2		2		2		2	
Opposing-Lanes	2		2		2		2	
Conflicting-lanes	2		2		2		2	
Geometry group	5		5		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	62	69	152	99	97	78	188	141
Left-Turn	7	0	98	0	19	0	58	0
Right-Turn	0	13	0	44	0	0	0	10
Prop. Left-Turns	0.1	0.0	0.6	0.0	0.2	0.0	0.3	0.0
Prop. Right-Turns	0.0	0.2	0.0	0.4	0.0	0.0	0.0	0.1
Prop. Heavy Vehicle	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Geometry Group	5		5		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.5		0.5		0.5		0.5	

hRT-adj		-0.7		-0.7		-0.7		-0.7
hHV-adj		1.7		1.7		1.7		1.7
hadj, computed	0.2	-0.0	0.4	-0.2	0.2	0.1	0.6	0.4

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	62	69	152	99	97	78	188	141
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06	0.06	0.14	0.09	0.09	0.07	0.17	0.13
hd, final value	6.44	6.25	6.53	5.89	6.27	6.18	6.41	6.21
x, final value	0.11	0.12	0.28	0.16	0.17	0.13	0.33	0.24
Move-up time, m		2.3		2.3		2.3		2.3
Service Time	4.1	4.0	4.2	3.6	4.0	3.9	4.1	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	62	69	152	99	97	78	188	141
Service Time	4.1	4.0	4.2	3.6	4.0	3.9	4.1	3.9
Utilization, x	0.11	0.12	0.28	0.16	0.17	0.13	0.33	0.24
Dep. headway, hd	6.44	6.25	6.53	5.89	6.27	6.18	6.41	6.21
Capacity	312	319	402	349	347	328	438	391
Delay	9.94	9.80	11.69	9.73	10.25	9.83	12.31	10.89
LOS	A	A	B	A	B	A	B	B
Approach:								
Delay		9.87		10.92		10.06		11.70
LOS		A		B		B		B
Intersection Delay 10.88				Intersection LOS B				

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Randall Avenue

Inter.: Randall Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	8	231	52	11	246	64	66	118	13	107	158	11
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	31.8					19.8		
Yellow	3.0					3.0		
All Red	1.2					1.2		

Cycle Length: 60.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	1203	2269	0.25	0.53	8.2	A	8.2	A
Westbound								
LTR	1279	2414	0.27	0.53	8.3	A	8.3	A
Northbound								
LTR	614	1860	0.41	0.33	17.5	B	17.5	B
Southbound								
LTR	579	1756	0.57	0.33	20.5	C	20.5	C

Intersection Delay = 13.4 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Randall Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Randall Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	231	52	11	246	64	66	118	13	107	158	11
% Heavy Veh	33	33	33	22	22	22	31	31	31	36	36	36
PHF	0.96	0.96	0.96	0.93	0.93	0.93	0.79	0.79	0.79	0.84	0.84	0.84
PK 15 Vol	2	60	14	3	66	17	21	37	4	32	47	3
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			10.5			10.5	
RTOR Vol			0			0			0			0
Adj Flow		303			346			249			328	
%InSharedLn												
Prop LTs		0.026			0.035			0.337			0.387	
Prop RTs		0.178			0.199			0.064			0.040	
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		18.2			18.2			18.0			18.5	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Garrison Avenue

Inter.: Garrison Ave & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	30	86	4	43	86	35	4	128	31	30	237	44
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	P				NB Left	P		
	Thru	P				Thru	P		
	Right	P				Right	P		
	Peds	X				Peds	X		
WB	Left	P				SB Left	P		
	Thru	P				Thru	P		
	Right	P				Right	P		
	Peds	X				Peds	X		
NB	Right					EB Right			
SB	Right					WB Right			
Green		43.0				67.0			
Yellow		3.0				3.0			
All Red		2.0				2.0			

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	931	2598	0.16	0.36	26.6	C	26.6	C
Westbound								
LTR	882	2461	0.22	0.36	27.4	C	27.4	C
Northbound								
LTR	1587	2843	0.12	0.56	12.7	B	12.7	B
Southbound								
LTR	1285	2302	0.31	0.56	14.7	B	14.7	B

Intersection Delay = 18.9 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Garrison Ave & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build

Project ID: Hunts Point WPCP
E/W St: Garrison Avenue N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	30	86	4	43	86	35	4	128	31	30	237	44
% Heavy Veh	6	6	6	6	6	6	6	6	6	24	24	24
PHF	0.79	0.79	0.79	0.85	0.85	0.85	0.85	0.85	0.85	0.79	0.79	0.79
PK 15 Vol	9	27	1	13	25	10	1	38	9	9	75	14
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900			1900	
ParkExist			X			X			X			X
NumPark			5			5			5			5
No. Lanes	0	2	0	0	2	0	0	2	0	0	2	0
LGConfig		LTR			LTR			LTR			LTR	
Lane Width		11.0			10.5			11.0			10.5	
RTOR Vol			0			0			0			0
Adj Flow		152			193			192			394	
%InSharedLn												
Prop LTs		0.250			0.264			0.026			0.096	
Prop RTs		0.033			0.212			0.188			0.142	
Peds Bikes		10	0		10	0		10	0		10	0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0			0.0	
Arriv. Type		3			3			3			3	
Unit Ext.		3.0			3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0			2.0	
Ext of g		2.0			2.0			2.0			2.0	
Ped Min g		20.3			18.0			18.3			18.3	

HCS2000: Unsignalized Intersections Release 4.1f

TWO-WAY STOP CONTROL SUMMARY

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		139			210	
Peak-Hour Factor, PHF		0.79			0.83	
Hourly Flow Rate, HFR		175			253	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			73			
Peak Hour Factor, PHF			0.76			
Hourly Flow Rate, HFR			96			
Percent Heavy Vehicles			6			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes		1				
Configuration		R				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					R			
v (vph)					96			
C(m) (vph)					930			
v/c					0.10			
95% queue length					0.34			
Control Delay					9.3			
LOS					A			
Approach Delay				9.3				
Approach LOS				A				

HCS2000: Unsignalized Intersections Release 4.1f

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TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Saurabh Kabre
Agency/Co.: AKRF, Inc.
Date Performed: 7/14/2006
Analysis Time Period: PM Peak Hour
Intersection: Lafayette Ave & Tiffany Street
Jurisdiction: New York City
Units: U. S. Customary
Analysis Year: 2011 Build
Project ID: Hunts Point WPCP
East/West Street: Lafayette Avenue
North/South Street: Tiffany Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume		139			210	
Peak-Hour Factor, PHF		0.79			0.83	
Peak-15 Minute Volume		44			63	
Hourly Flow Rate, HFR		175			253	
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		2			2	
Configuration		T			T	
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			73			
Peak Hour Factor, PHF			0.76			
Peak-15 Minute Volume			24			
Hourly Flow Rate, HFR			96			
Percent Heavy Vehicles			6			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		/
RT Channelized?			No			
Lanes			1			
Configuration			R			

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	5	0

Data Analysis

Highway Capacity Software Analysis for the 2011 Build with Improvements Conditions AM Peak Period

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build w/ Improvements
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		269		398	584		27	26	106	29	29	13
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left	P				SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	41.0	35.0				28.0		
Yellow	6.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	966	3313	0.36	0.29	34.4	C	34.4	C
Westbound								
L	569	1665	0.89	0.34	53.6	D		
T	2115	3095	0.35	0.68	3.0	A	23.5	C
Northbound								
LT	368	1575	0.18	0.23	37.8	D	40.0	D
R	364	1558	0.35	0.23	41.1	D		
Southbound								
LTR	359	1540	0.25	0.23	39.2	D	39.2	D

Intersection Delay = 28.0 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build w/ Improvements

Project ID: Hunts Point WPCP (Sat. Flow Rate WBL=2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		269		398	584		27	26	106	29	29	13
% Heavy Veh		11		13	13		16	16	16	8	8	8
PHF		0.78		0.79	0.79		0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		86		126	185		8	8	32	9	9	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0		1	2	0	0	1	1	0	1	0
LGConfig		T		L		T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		345		504	739			65	129		91	
%InSharedLn												
Prop LTs		0.000			0.000			0.508			0.407	
Prop RTs	0.000			0.000			0.000		1.000	0.187		
Peds Bikes	0						10		0	10		0
Buses		0		0	0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.2						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: AM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build w/ Improvements

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		151	7		736	60	27	26	106	29	29	13
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	41.0	35.0				28.0		
Yellow	6.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	806	2762	0.25	0.29	33.0	C	33.0	C
Westbound								
TR	2014	2948	0.50	0.68	3.8	A	3.8	A
Northbound								
LT	368	1575	0.18	0.23	37.8	D	40.0	D
R	364	1558	0.35	0.23	41.1	D		
Southbound								
LTR	359	1540	0.25	0.23	39.2	D	39.2	D

Intersection Delay = 14.6 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	AM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build w/ Improvements

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		151	7		736	60	27	26	106	29	29	13
% Heavy Veh		30	30		8	8	16	16	16	8	8	8
PHF		0.78	0.78		0.79	0.79	0.82	0.82	0.82	0.78	0.78	0.78
PK 15 Vol		48	2		233	19	8	8	32	9	9	4
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		203			1008			65	129		91	
%InSharedLn												
Prop LTs		0.000			0.000			0.508			0.407	
Prop RTs	0.044			0.075			0.000		1.000	0.187		
Peds Bikes	10		0	10		0	10		0	10		0
Buses		0			0			0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	

Data Analysis

Highway Capacity Software Analysis for the 2011 Build with Improvements Conditions PM Peak Period

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP (Sat. Flow Rate, WBL=2200)
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build w/ Improvements
N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	1	2	0	0	1	1	0	1	0
LGConfig		T		L	T			LT	R		LTR	
Volume		783		211	482		19	57	117	122	93	31
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left	P			
	Thru		P				Thru	P			
	Right						Right	P			
	Peds		X				Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P	P				Thru	P			
	Right						Right	P			
	Peds	X	X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		17.0	57.0					31.0			
Yellow		5.0	3.0					3.0			
All Red		0.0	2.0					2.0			

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	1532	3226	0.61	0.47	20.5	C	20.5	C
Westbound								
L	217	1529	1.03	0.14	121.3	F		
T	1872	2843	0.27	0.66	3.9	A	39.6	D
Northbound								
LT	447	1730	0.20	0.26	35.8	D	36.9	D
R	441	1707	0.30	0.26	37.6	D		
Southbound								
LTR	350	1354	0.85	0.26	63.8	E	63.8	E

Intersection Delay = 34.4 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build w/ Improvements

Project ID: Hunts Point WPCP (Sat. Flow Rate, WBL=2200)
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		783		211	482		19	57	117	122	93	31
% Heavy Veh		14		23	23		6	6	6	24	24	24
PHF		0.84		0.94	0.94		0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		233		56	128		5	16	34	37	28	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900		2200	1900			1900	1900		1900	
ParkExist												X
NumPark												5
No. Lanes	0	2	0		1	2	0	0	1	1	0	1	0
LGConfig		T		L		T			LT	R		LTR	
Lane Width		12.5		9.0	11.0			11.0	16.0		13.0	
RTOR Vol									0			0
Adj Flow		932		224	513			88	134		296	
%InSharedLn												
Prop LTs		0.000			0.000			0.250			0.497	
Prop RTs	0.000			0.000			0.000		1.000	0.125		
Peds Bikes	0						10		0	10		0
Buses		0		0		0			0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0			0.0	0.0		0.0	
Arriv. Type		4		4	4			3	3		3	
Unit Ext.		3.0		3.0	3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0		2.0	2.0			2.0	2.0		2.0	
Ext of g		2.0		2.0	2.0			2.0	2.0		2.0	
Ped Min g		18.2						21.3			20.3	

HCS2000: Signalized Intersections Release 4.1f

Analyst: Saurabh Kabre
Agency: AKRF, Inc.
Date: 7/14/2006
Period: PM Peak Hour
Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd

Inter.: Bruckner Blvd & Tiffany Street
Area Type: All other areas
Jurisd: New York City
Year : 2011 Build w/ Improvements

N/S St: Tiffany Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Volume		546	7		547	105	19	57	117	122	93	31
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru	P	P			Thru	P		
Right	P	P			Right	P		
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	17.0	57.0				31.0		
Yellow	5.0	3.0				3.0		
All Red	0.0	2.0				2.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1559	3282	0.42	0.47	17.5	B	17.5	B
Westbound								
TR	1880	2855	0.37	0.66	4.4	A	4.4	A
Northbound								
LT	447	1730	0.20	0.26	35.8	D	36.9	D
R	441	1707	0.30	0.26	37.6	D		
Southbound								
LTR	350	1354	0.85	0.26	63.8	E	63.8	E

Intersection Delay = 22.2 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1f

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OPERATIONAL ANALYSIS

Analyst:	Saurabh Kabre
Agency/Co.:	AKRF, Inc.
Date Performed:	7/14/2006
Analysis Time Period:	PM Peak Hour
Intersection:	Bruckner Blvd & Tiffany Street
Area Type:	All other areas
Jurisdiction:	New York City
Analysis Year:	2011 Build w/ Improvements

Project ID: Hunts Point WPCP
E/W St: Bruckner Blvd N/S St: Tiffany Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		546	7		547	105	19	57	117	122	93	31
% Heavy Veh		10	10		10	10	6	6	6	24	24	24
PHF		0.84	0.84		0.94	0.94	0.87	0.87	0.87	0.83	0.83	0.83
PK 15 Vol		163	2		145	28	5	16	34	37	28	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat		1900			1900			1900	1900		1900	
ParkExist						X						X
NumPark						5						5
No. Lanes	0	2	0	0	2	0	0	1	1	0	1	0
LGConfig		TR			TR			LT	R		LTR	
Lane Width		12.0			10.5			11.0	16.0		13.0	
RTOR Vol			0			0			0			0
Adj Flow		658			694			88	134		296	
%InSharedLn												
Prop LTs		0.000			0.000			0.250			0.497	
Prop RTs		0.012			0.161			0.000	1.000		0.125	
Peds		10	0		10	0		10	0		10	0
Bikes												
Buses		0			0			0	0		0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0	0.0		0.0	
Arriv. Type		4			4			3	3		3	
Unit Ext.		3.0			3.0			3.0	3.0		3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time		2.0			2.0			2.0	2.0		2.0	
Ext of g		2.0			2.0			2.0	2.0		2.0	
Ped Min g		18.3			13.8			21.3			20.3	