

**Appendix C**

**VOC and NO<sub>x</sub> Emissions by Functional Class  
CDTC STEP Model Results**

**CAPITAL DISTRICT AIR QUALITY CONFORMITY FINDING FOR  
THE NEW VISIONS 2030 REGIONAL TRANSPORTATION PLAN,  
THE CDTC 2007-12 TRANSPORTATION IMPROVEMENT PROGRAM,  
AND NYSDOT CAPITAL PROGRAM**

**Capital District Transportation Committee**

### VOC Emissions for 1990

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\C21-611.LL9  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Grams			Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
			Daily VMT	Daily HC	Daily VHT									
Rural Minor Collector	556	1143	1029082	3057573	26805	38	5	45	0.1	10	87	1484	283	227- 673
Rural Major Collector	326	514	960960	2742939	22246	43	11	126	0.1	24	272	2444	258	707- 1728
Rural Minor Arterial	347	584	1868590	4942345	36231	52	34	426	0.2	81	1006	6558	470	2616- 6063
Rural Principal Arteri	48	256	1447630	3647949	24508	59	0	0	0.0	0	0	655	341	0- 0
Rural Interstate	1148	582	1559902	5783432	63582	25	219	2399	1.7	797	8749	32352	485	22747- 56659
Urban Collector	1295	567	2896838	10081447	110054	26	624	6306	2.6	2296	23189	71104	862	60292-157950
Urban Minor Arterial	613	286	2033264	7563477	82740	25	1176	12031	7.0	4729	48361	90520	660	125739-326903
Urban Principal Arteri	519	399	2908873	9269045	90005	32	686	7408	2.9	2465	26602	69573	800	69166-174001
Urban Interstate	214	495	4626730	11726594	85234	54	642	7134	1.5	1444	16032	20116	1179	41684-103090
RAMPS	141	52	245344	901779	10408	24	147	1552	6.2	387	4090	7873	93	10635- 27105
SYSTEM ADDITIONS	229	162	323428	1132157	12654	26	33	334	1.2	114	1162	5178	95	3021- 7868
<b>TOTAL SYSTEM</b>	<b>5436</b>	<b>5040</b>	<b>1990063</b>	<b>460848756</b>	<b>564467</b>	<b>31</b>	<b>3579</b>	<b>37760</b>	<b>2.0</b>	<b>12347</b>	<b>129552</b>	<b>307856</b>	<b>5526</b>	<b>336834- 862039</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	1751769	Total Daily Vehicle Miles of Travel =	19900634	Annual (x 1000) =	5174165
PM Peak Hour Vehicle Hours of Travel =	55911	Total Daily Vehicle Hours of Travel =	564467	Annual (x 1000) =	146761
PM Pk Hr VOC Emissions (Moble 6)(KG)=	5526	Total Daily VOC Emissions (Mobile 6)(KG)=	60849	Annual (x 1000) =	15821
PM Peak Hour Time Cost (\$) =	457353	Total Daily Time Cost (\$) =	4617339	Annual (x 1000) =	1200508
PM Peak Hour Operating Cost (\$) =	299057	Total Daily Operating Cost (\$) =	3034903	Annual (x 1000) =	789075
PM Peak Hour Accident Cost (\$) =	230323	Total Daily Accident Cost (\$) =	2661622	Annual (x 1000) =	692022 (@ state avg = 957437)
TOTAL PM PEAK HOUR USER COSTS (\$) =	986733	TOTAL DAILY USER COSTS (\$) =	10313863	ANNUAL (x 1000) =	2681605

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 1237.231 Total (pm) excess node delay time = 2343.363

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 5/04. Assumes fed. veh. stds. No I & M, no reform gas.

### NOx Emissions for 1990

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\C21-611.LL9  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Grams			Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
			Daily VMT	Daily NOx	Daily VHT									
Rural Minor Collector	556	1143	1029082	2776645	26805	38	5	45	0.1	10	87	1484	257	227- 673
Rural Major Collector	326	514	960960	2621626	22246	43	11	126	0.1	24	272	2444	246	707- 1728
Rural Minor Arterial	347	584	1868590	6104829	36231	52	34	426	0.2	81	1006	6558	579	2616- 6063
Rural Principal Arteri	48	256	1447630	5113607	24508	59	0	0	0.0	0	0	655	478	0- 0
Rural Interstate	1148	582	1559902	6008717	63582	25	219	2399	1.7	797	8749	32352	503	22747- 56659
Urban Collector	1295	567	2896838	7303902	110054	26	624	6306	2.6	2296	23189	71104	622	60292-157950
Urban Minor Arterial	613	286	2033264	5794809	82740	25	1176	12031	7.0	4729	48361	90520	502	125739-326903
Urban Principal Arteri	519	399	2908873	7891984	90005	32	686	7408	2.9	2465	26602	69573	678	69166-174001
Urban Interstate	214	495	4626730	13387253	85234	54	642	7134	1.5	1444	16032	20116	1331	41684-103090
RAMPS	141	52	245344	690787	10408	24	147	1552	6.2	387	4090	7873	71	10635- 27105
SYSTEM ADDITIONS	229	162	323428	829924	12654	26	33	334	1.2	114	1162	5178	69	3021- 7868
TOTAL SYSTEM	5436	5040	19900634	58524072	564467	35	3579	37760	2.0	12347	129552	307856	5336	336834- 862039

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	1751769	Total Daily Vehicle Miles of Travel =	19900634	Annual (x 1000) =	5174165
PM Peak Hour Vehicle Hours of Travel =	55911	Total Daily Vehicle Hours of Travel =	564467	Annual (x 1000) =	146761
PM Pk Hr NOx Emissions (Moble 6)(KG)=	5336	Total Daily NOx Emissions (Mobile 6)(KG)=	58524	Annual (x 1000) =	15216
PM Peak Hour Time Cost (\$) =	457353	Total Daily Time Cost (\$) =	4617339	Annual (x 1000) =	1200508
PM Peak Hour Operating Cost (\$) =	299057	Total Daily Operating Cost (\$) =	3034903	Annual (x 1000) =	789075
PM Peak Hour Accident Cost (\$) =	230323	Total Daily Accident Cost (\$) =	2661622	Annual (x 1000) =	692022 (@ state avg = 957437)
TOTAL PM PEAK HOUR USER COSTS (\$) =	986733	TOTAL DAILY USER COSTS (\$) =	10313863	ANNUAL (x 1000) =	2681605

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 1237.231 Total (pm) excess node delay time = 2343.363

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 5/04. Assumes fed. veh. stds. No I & M, no reform gas.

# VOC Emissions for 2002

04-23-2007

13:12:31

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k05-NB02.LL9  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Grams			Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
			Daily VMT	Daily HC	Daily VHT										
Rural Minor Collector	515	1097	1416013	1907498	37205	38	23	220	0.2	58	552	3530	179	1436-	3914
Rural Major Collector	332	537	1306747	1715736	31486	42	48	510	0.4	131	1393	5031	164	3621-	9201
Rural Minor Arterial	220	389	1385650	1711703	28172	49	167	1948	1.3	452	5259	6037	166	13674-	32890
Rural Principal Arteri	122	182	1017842	1266088	21362	48	154	1827	1.6	416	4931	8385	125	12822-	30499
Rural Interstate	48	256	2100168	2498633	36631	57	2	19	0.0	5	39	2516	242	101-	303
Urban Collector	1086	591	1794687	3042157	76940	23	532	5481	3.6	2177	22412	45777	259	58271-	150883
Urban Minor Arterial	1387	639	3764907	6323394	152389	25	1998	20018	6.4	8019	80345	118508	559	208896-	549986
Urban Principal Arteri	1130	680	6503911	11150124	268055	24	6871	69793	12.8	27512	279459	299962	1040	726592-	1896849
Urban Interstate	228	507	6037888	7166982	123313	49	3229	37391	5.7	7621	88243	58186	774	229432-	553606
RAMPS	143	52	317873	586404	15453	21	523	5145	17.1	1573	15465	13794	65	40210-	107130
SYSTEM ADDITIONS	160	133	279978	518719	13674	20	273	2653	11.8	1002	9741	9607	48	25326-	67942
TOTAL SYSTEM	5371	5063	25925664	37887396	804680	26	13822	145005	6.0	48966	507839	571333	3621132	0382-	3403203

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2293319	Total Daily Vehicle Miles of Travel =	25925664	Annual (x 1000) =	6740673
PM Peak Hour Vehicle Hours of Travel =	86957	Total Daily Vehicle Hours of Travel =	804680	Annual (x 1000) =	209217
PM Pk Hr VOC Emissions (Moble 6)(KG)=	3621	Total Daily VOC Emissions (Mobile 6)(KG)=	37887	Annual (x 1000) =	9851
PM Peak Hour Time Cost (\$) =	711308	Total Daily Time Cost (\$) =	6582282	Annual (x 1000) =	1711393
PM Peak Hour Operating Cost (\$) =	426317	Total Daily Operating Cost (\$) =	4065289	Annual (x 1000) =	1056975
PM Peak Hour Accident Cost (\$) =	378438	Total Daily Accident Cost (\$) =	4374637	Annual (x 1000) =	1137406 (@ state avg = 1218839)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1516064	TOTAL DAILY USER COSTS (\$) =	15022208	ANNUAL (x 1000) =	3905774

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 7223.03 Total (pm) excess node delay time = 6603.524

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# NOx Emissions for 2002

04-23-2007

13:12:33

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k05-NB02.LL9  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Grams			Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
			Daily VMT	Daily NOx	Daily VHT										
Rural Minor Collector	515	1097	1416013	2500091	37205	38	23	220	0.2	58	552	3530	235	1436-	3914
Rural Major Collector	332	537	1306747	2328689	31486	42	48	510	0.4	131	1393	5031	222	3621-	9201
Rural Minor Arterial	220	389	1385650	2853896	28172	49	167	1948	1.3	452	5259	6037	275	13674-	32890
Rural Principal Arteri	122	182	1017842	2053747	21362	48	154	1827	1.6	416	4931	8385	201	12822-	30499
Rural Interstate	48	256	2100168	6307615	36631	57	2	19	0.0	5	39	2516	609	101-	303
Urban Collector	1086	591	1794687	2909586	76940	23	532	5481	3.6	2177	22412	45777	247	58271-	150883
Urban Minor Arterial	1387	639	3764907	6429104	152389	25	1998	20018	6.4	8019	80345	118508	562	208896-	549986
Urban Principal Arteri	1130	680	6503911	110949441	268055	24	6871	69793	12.8	27512	279459	299962	1004	726592-	1896849
Urban Interstate	228	507	6037888	10942422	123313	49	3229	37391	5.7	7621	88243	58186	1151	229432-	553606
RAMPS	143	52	317873	587086	15453	21	523	5145	17.1	1573	15465	13794	63	40210-	107130
SYSTEM ADDITIONS	160	133	279978	454971	13674	20	273	2653	11.8	1002	9741	9607	41	25326-	67942
<b>TOTAL SYSTEM</b>	<b>5371</b>	<b>5063</b>	<b>25925664</b>	<b>448316640</b>	<b>804680</b>	<b>32</b>	<b>13822</b>	<b>145005</b>	<b>6.0</b>	<b>48966</b>	<b>507839</b>	<b>571333</b>	<b>46091320</b>	<b>382-3403203</b>	

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2293319	Total Daily Vehicle Miles of Travel =	25925664	Annual (x 1000) =	6740673
PM Peak Hour Vehicle Hours of Travel =	86957	Total Daily Vehicle Hours of Travel =	804680	Annual (x 1000) =	209217
PM Pk Hr NOx Emissions (Moble 6)(KG)=	4609	Total Daily NOx Emissions (Mobile 6)(KG)=	48317	Annual (x 1000) =	12562
PM Peak Hour Time Cost (\$) =	711308	Total Daily Time Cost (\$) =	6582282	Annual (x 1000) =	1711393
PM Peak Hour Operating Cost (\$) =	426317	Total Daily Operating Cost (\$) =	4065289	Annual (x 1000) =	1056975
PM Peak Hour Accident Cost (\$) =	378438	Total Daily Accident Cost (\$) =	4374637	Annual (x 1000) =	1137406 (@ state avg = 1218839)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1516064	TOTAL DAILY USER COSTS (\$) =	15022208	ANNUAL (x 1000) =	3905774

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 7223.03 Total (pm) excess node delay time = 6603.524

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# VOC Emissions for Year 2012 No Build

04-23-2007

13:11:52

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k07-NB12.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily HC	Daily Daily VHT										
Rural Minor Collector	519	1097	1626302	760372	42444	38	29	296	0.2	75	774	4238	71	2012-	5197
Rural Major Collector	334	537	1485786	667597	35268	42	70	741	0.5	171	1818	4609	64	4728-	12007
Rural Minor Arterial	222	389	1582252	684877	31546	50	253	2816	1.7	592	6607	4356	67	17178-	42379
Rural Principal Arteri	122	185	1143691	490854	22961	50	216	2417	2.0	524	5879	6177	49	15285-	37584
Rural Interstate	48	256	2340635	1004686	39192	60	18	176	0.1	48	462	415	99	1202-	3252
Urban Collector	1096	591	2024555	1159817	86212	23	629	6447	3.8	2412	24743	49520	100	64333-	166949
Urban Minor Arterial	1389	641	4286491	2419351	167583	26	2810	27605	8.0	10425	102417	114464	218	266284-	709739
Urban Principal Arteri	1134	684	7264986	4042133	275978	26	7758	78513	13.0	28710	290549	271017	382	755427-	1976626
Urban Interstate	228	507	6577646	2616924	114831	57	5023	50311	8.1	11803	118208	8753	288	307342-	809394
RAMPS	144	52	339012	202121	14760	23	503	4898	15.5	1406	13679	10859	22	35566-	95356
SYSTEM ADDITIONS	159	144	326703	197066	14897	22	378	3761	14.0	1358	13506	8447	18	35115-	92871
TOTAL SYSTEM	5395	5082	28998058	14245828	845673	27	17686	177981	6.9	57525	578642	482856	1378150	4470-	3951354

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2563248	Total Daily Vehicle Miles of Travel =	28998058	Annual (x 1000) =	7539495
PM Peak Hour Vehicle Hours of Travel =	94115	Total Daily Vehicle Hours of Travel =	845673	Annual (x 1000) =	219875
PM Pk Hr VOC Emissions (Moble 6)(KG)=	1378	Total Daily VOC Emissions (Mobile 6)(KG)=	14246	Annual (x 1000) =	3704
PM Peak Hour Time Cost (\$) =	769863	Total Daily Time Cost (\$) =	6917603	Annual (x 1000) =	1798577
PM Peak Hour Operating Cost (\$) =	469558	Total Daily Operating Cost (\$) =	4528180	Annual (x 1000) =	1177327
PM Peak Hour Accident Cost (\$) =	444343	Total Daily Accident Cost (\$) =	5131507	Annual (x 1000) =	1334192 (@ state avg = 1370240)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1683764	TOTAL DAILY USER COSTS (\$) =	16577289	ANNUAL (x 1000) =	4310095

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 12056.43 Total (pm) excess node delay time = 5642.598

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

04-23-2007

13:11:55

### NOx Emissions for Year 2012 No Build

USER COST ACCOUNTING OUTPUT  
FOR: c:\e\k07-NB12.LL7  
PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Grams			Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
			Daily VMT	Daily NOx	Daily VHT									
Rural Minor Collector	519	1097	1626302	1052434	42444	38	29	296	0.2	75	774	4238	99	2012- 5197
Rural Major Collector	334	537	1485786	967065	35268	42	70	741	0.5	171	1818	4609	93	4728- 12007
Rural Minor Arterial	222	389	1582252	1211741	31546	50	253	2816	1.7	592	6607	4356	117	17178- 42379
Rural Principal Arteri	122	185	1143691	853383	22961	50	216	2417	2.0	524	5879	6177	85	15285- 37584
Rural Interstate	48	256	2340635	2710205	39192	60	18	176	0.1	48	462	415	266	1202- 3252
Urban Collector	1096	591	2024555	1151964	86212	23	629	6447	3.8	2412	24743	49520	98	64333-166949
Urban Minor Arterial	1389	641	4286491	2584466	167583	26	2810	27605	8.0	10425	102417	114464	230	266284-709739
Urban Principal Arteri	1134	684	7264986	4284929	275978	26	7758	78513	13.0	28710	290549	271017	400	755427-1976626
Urban Interstate	228	507	6577646	4306219	114831	57	5023	50311	8.1	11803	118208	8753	462	307342-809394
RAMPS	144	52	339012	223723	14760	23	503	4898	15.5	1406	13679	10859	24	35566- 95356
SYSTEM ADDITIONS	159	144	326703	183671	14897	22	378	3761	14.0	1358	13506	8447	17	35115- 92871
TOTAL SYSTEM	5395	5082	28998058	19529772	845673	34	17686	177981	6.9	57525	578642	482856	1890150	4470-3951354

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2563248	Total Daily Vehicle Miles of Travel =	28998058	Annual (x 1000) =	7539495
PM Peak Hour Vehicle Hours of Travel =	94115	Total Daily Vehicle Hours of Travel =	845673	Annual (x 1000) =	219875
PM Pk Hr NOx Emissions (Moble 6)(KG)=	1890	Total Daily NOx Emissions (Mobile 6)(KG)=	19530	Annual (x 1000) =	5078
PM Peak Hour Time Cost (\$) =	769863	Total Daily Time Cost (\$) =	6917603	Annual (x 1000) =	1798577
PM Peak Hour Operating Cost (\$) =	469558	Total Daily Operating Cost (\$) =	4528180	Annual (x 1000) =	1177327
PM Peak Hour Accident Cost (\$) =	444343	Total Daily Accident Cost (\$) =	5131507	Annual (x 1000) =	1334192 (@ state avg = 1370240)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1683764	TOTAL DAILY USER COSTS (\$) =	16577289	ANNUAL (x 1000) =	4310095

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 12056.43 Total (pm) excess node delay time = 5642.598

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# VOC Emissions Year 2012 with 2007-12 TIP and Financially Constrained New Visions Plan

04-23-2007

13:12:07

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k33-B12.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily HC	Daily Daily VHT										
Rural Minor Collector	517	1097	1485820	693049	38567	39	16	148	0.1	40	362	2995	65	941-	2630
Rural Major Collector	334	538	1323926	596074	31352	42	35	390	0.3	91	1026	4242	57	2669-	6547
Rural Minor Arterial	226	390	1423829	616407	28203	50	144	1573	1.1	330	3608	3440	60	9380-	23438
Rural Principal Arteri	126	186	1055627	456280	21229	50	145	1611	1.5	342	3796	5315	45	9871-	24406
Rural Interstate	48	256	2198595	949027	36852	60	2	20	0.0	5	42	333	92	109-	328
Urban Collector	1101	593	1827590	1019735	75169	24	340	3573	2.3	1204	12652	38840	87	32896-	84124
Urban Minor Arterial	1386	639	3829970	2082268	142587	27	1283	12780	4.1	4650	46331	88289	182	120461-	318265
Urban Principal Arteri	1154	714	6777071	3629930	240881	28	4760	47664	8.5	16743	167664	209474	332	435927-	1148117
Urban Interstate	216	509	6063904	2401965	104366	58	3352	34264	5.9	7719	78905	6101	258	205154-	533497
RAMPS	140	51	296207	166589	12255	24	195	1798	6.9	587	5404	7377	18	14051-	39011
SYSTEM ADDITIONS	191	171	302269	167740	12489	24	100	1083	4.0	372	4017	6215	15	10445-	26257
<b>TOTAL SYSTEM</b>	<b>5439</b>	<b>5145</b>	<b>26584806</b>	<b>12779062</b>	<b>743951</b>	<b>30</b>	<b>10372</b>	<b>104903</b>	<b>4.4</b>	<b>32084</b>	<b>323810</b>	<b>372623</b>	<b>1210</b>	<b>841905-</b>	<b>2206619</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2350227	Total Daily Vehicle Miles of Travel =	26584806	Annual (x 1000) =	6912050
PM Peak Hour Vehicle Hours of Travel =	79117	Total Daily Vehicle Hours of Travel =	743951	Annual (x 1000) =	193427
PM Pk Hr VOC Emissions (Moble 6)(KG)=	1210	Total Daily VOC Emissions (Mobile 6)(KG)=	12779	Annual (x 1000) =	3323
PM Peak Hour Time Cost (\$) =	647176	Total Daily Time Cost (\$) =	6085519	Annual (x 1000) =	1582235
PM Peak Hour Operating Cost (\$) =	413699	Total Daily Operating Cost (\$) =	4099290	Annual (x 1000) =	1065815
PM Peak Hour Accident Cost (\$) =	369827	Total Daily Accident Cost (\$) =	4272916	Annual (x 1000) =	1110958 (@ state avg = 1254485)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1430701	TOTAL DAILY USER COSTS (\$) =	14457724	ANNUAL (x 1000) =	3759008

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 7031.759 Total (pm) excess node delay time = 3358.6

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# NOx Emissions Year 2012 with 2007-12 TIP and Financially Constrained New Visions Plan

04-23-2007

13:12:09

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k33-B12.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily NOx	Daily Daily VHT										
Rural Minor Collector	517	1097	1485820	962761	38567	39	16	148	0.1	40	362	2995	91	941-	2630
Rural Major Collector	334	538	1323926	867491	31352	42	35	390	0.3	91	1026	4242	83	2669-	6547
Rural Minor Arterial	226	390	1423829	1100048	28203	50	144	1573	1.1	330	3608	3440	106	9380-	23438
Rural Principal Arteri	126	186	1055627	798719	21229	50	145	1611	1.5	342	3796	5315	78	9871-	24406
Rural Interstate	48	256	2198595	2595709	36852	60	2	20	0.0	5	42	333	252	109-	328
Urban Collector	1101	593	1827590	1034709	75169	24	340	3573	2.3	1204	12652	38840	88	32896-	84124
Urban Minor Arterial	1386	639	3829970	2309369	142587	27	1283	12780	4.1	4650	46331	88289	201	120461-	318265
Urban Principal Arteri	1154	714	6777071	4025863	240881	28	4760	47664	8.5	16743	167664	209474	365	435927-	1148117
Urban Interstate	216	509	6063904	4099421	104366	58	3352	34264	5.9	7719	78905	6101	431	205154-	533497
RAMPS	140	51	296207	197774	12255	24	195	1798	6.9	587	5404	7377	20	14051-	39011
SYSTEM ADDITIONS	191	171	302269	169043	12489	24	100	1083	4.0	372	4017	6215	15	10445-	26257
<b>TOTAL SYSTEM</b>	<b>5439</b>	<b>5145</b>	<b>26584806</b>	<b>18160908</b>	<b>743951</b>	<b>36</b>	<b>10372</b>	<b>104903</b>	<b>4.4</b>	<b>32084</b>	<b>323810</b>	<b>372623</b>	<b>1729</b>	<b>841905-</b>	<b>2206619</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2350227	Total Daily Vehicle Miles of Travel =	26584806	Annual (x 1000) =	6912050
PM Peak Hour Vehicle Hours of Travel =	79117	Total Daily Vehicle Hours of Travel =	743951	Annual (x 1000) =	193427
PM Pk Hr NOx Emissions (Moble 6)(KG)=	1729	Total Daily NOx Emissions (Mobile 6)(KG)=	18161	Annual (x 1000) =	4722
PM Peak Hour Time Cost (\$) =	647176	Total Daily Time Cost (\$) =	6085519	Annual (x 1000) =	1582235
PM Peak Hour Operating Cost (\$) =	413699	Total Daily Operating Cost (\$) =	4099290	Annual (x 1000) =	1065815
PM Peak Hour Accident Cost (\$) =	369827	Total Daily Accident Cost (\$) =	4272916	Annual (x 1000) =	1110958 (@ state avg = 1254485)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1430701	TOTAL DAILY USER COSTS (\$) =	14457724	ANNUAL (x 1000) =	3759008

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 7031.759 Total (pm) excess node delay time = 3358.6

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

## VOC Emissions for Year 2015 No Build

04-23-2007

13:11:57

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k07-NB15.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily HC	Daily Daily VHT										
Rural Minor Collector	519	1097	1704047	640480	44559	38	34	381	0.2	95	1059	5068	60	2753-	6791
Rural Major Collector	334	537	1526976	557455	36324	42	78	860	0.5	187	2053	5043	53	5338-	13307
Rural Minor Arterial	222	389	1624678	570739	32514	50	262	2854	1.7	615	6703	4569	56	17428-	43586
Rural Principal Arteri	122	185	1158926	403324	23319	50	245	2804	2.3	605	6911	6545	41	17968-	43704
Rural Interstate	48	256	2401228	852152	40198	60	29	267	0.1	78	711	416	84	1849-	5178
Urban Collector	1096	591	2100414	975374	90303	23	723	7622	4.2	2807	29586	54733	84	76923-	196304
Urban Minor Arterial	1391	641	4444487	2035390	176002	25	3376	32821	9.2	12354	120098	121641	185	312256-	837760
Urban Principal Arteri	1134	684	7468934	3371363	288341	26	8719	88748	14.2	32411	329889	291317	322	857711-	2236358
Urban Interstate	228	507	6770213	2189840	119750	57	6009	56050	9.4	14189	132343	9018	243	344092-	947626
RAMPS	144	52	352683	169883	15477	23	639	6215	18.9	1779	17314	11613	19	45017-	120705
SYSTEM ADDITIONS	161	144	341691	175069	16093	21	525	5038	18.6	1880	18042	9323	16	46908-	126891
<b>TOTAL SYSTEM</b>	<b>5399</b>	<b>5082</b>	<b>29894320</b>	<b>11941054</b>	<b>882882</b>	<b>27</b>	<b>20641</b>	<b>203660</b>	<b>7.8</b>	<b>67001</b>	<b>664709</b>	<b>519287</b>	<b>116317</b>	<b>28242-</b>	<b>4578211</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2642419	Total Daily Vehicle Miles of Travel =	29894320	Annual (x 1000) =	7772523
PM Peak Hour Vehicle Hours of Travel =	99582	Total Daily Vehicle Hours of Travel =	882882	Annual (x 1000) =	229549
PM Pk Hr VOC Emissions (Moble 6)(KG)=	1163	Total Daily VOC Emissions (Mobile 6)(KG)=	11941	Annual (x 1000) =	3105
PM Peak Hour Time Cost (\$) =	814577	Total Daily Time Cost (\$) =	7221978	Annual (x 1000) =	1877714
PM Peak Hour Operating Cost (\$) =	489954	Total Daily Operating Cost (\$) =	4686694	Annual (x 1000) =	1218540
PM Peak Hour Accident Cost (\$) =	470743	Total Daily Accident Cost (\$) =	5435238	Annual (x 1000) =	1413162 (@ state avg = 1413598)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1775274	TOTAL DAILY USER COSTS (\$) =	17343910	ANNUAL (x 1000) =	4509417

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 14310.27 Total (pm) excess node delay time = 6345.461

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

04-23-2007

13:12:00

### NOx Emissions for Year 2015 No Build

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k07-NB15.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily NOx	Daily Daily VHT										
Rural Minor Collector	519	1097	1704047	782733	44559	38	34	381	0.2	95	1059	5068	74	2753-	6791
Rural Major Collector	334	537	1526976	709422	36324	42	78	860	0.5	187	2053	5043	68	5338-	13307
Rural Minor Arterial	222	389	1624678	882080	32514	50	262	2854	1.7	615	6703	4569	86	17428-	43586
Rural Principal Arteri	122	185	1158926	612288	23319	50	245	2804	2.3	605	6911	6545	61	17968-	43704
Rural Interstate	48	256	2401228	1939763	40198	60	29	267	0.1	78	711	416	191	1849-	5178
Urban Collector	1096	591	2100414	870014	90303	23	723	7622	4.2	2807	29586	54733	74	76923-	196304
Urban Minor Arterial	1391	641	4444487	1934926	176002	25	3376	32821	9.2	12354	120098	121641	173	312256-	837760
Urban Principal Arteri	1134	684	7468934	3166060	288341	26	8719	88748	14.2	32411	329889	291317	298	857711-	2236358
Urban Interstate	228	507	6770213	3115726	119750	57	6009	56050	9.4	14189	132343	9018	336	344092-	947626
RAMPS	144	52	352683	165555	15477	23	639	6215	18.9	1779	17314	11613	18	45017-	120705
SYSTEM ADDITIONS	161	144	341691	139867	16093	21	525	5038	18.6	1880	18042	9323	13	46908-	126891
TOTAL SYSTEM	5399	5082	29894320	14318423	882882	34	20641	203660	7.8	67001	664709	519287	139217	28242-	4578211

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2642419	Total Daily Vehicle Miles of Travel =	29894320	Annual (x 1000) =	7772523
PM Peak Hour Vehicle Hours of Travel =	99582	Total Daily Vehicle Hours of Travel =	882882	Annual (x 1000) =	229549
PM Pk Hr NOx Emissions (Moble 6)(KG)=	1392	Total Daily NOx Emissions (Mobile 6)(KG)=	14318	Annual (x 1000) =	3723
PM Peak Hour Time Cost (\$) =	814577	Total Daily Time Cost (\$) =	7221978	Annual (x 1000) =	1877714
PM Peak Hour Operating Cost (\$) =	489954	Total Daily Operating Cost (\$) =	4686694	Annual (x 1000) =	1218540
PM Peak Hour Accident Cost (\$) =	470743	Total Daily Accident Cost (\$) =	5435238	Annual (x 1000) =	1413162 (@ state avg = 1413598)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1775274	TOTAL DAILY USER COSTS (\$) =	17343910	ANNUAL (x 1000) =	4509417

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 14310.27 Total (pm) excess node delay time = 6345.461

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# VOC Emissions for Year 2015 with 2007-12 TIP and Financially Constrained New Visions Plan

04-23-2007

13:12:11

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k34-B15.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily HC	Daily Daily VHT										
Rural Minor Collector	516	1097	1504272	564222	39083	38	19	173	0.1	48	432	3085	53	1123-	3155
Rural Major Collector	334	540	1338360	488833	31642	42	36	428	0.3	95	1125	4279	47	2924-	6968
Rural Minor Arterial	224	389	1430141	502713	28309	51	157	1850	1.2	368	4340	3773	49	11283-	26920
Rural Principal Arteri	128	188	1083556	380175	21861	50	167	1800	1.6	400	4323	5407	38	11241-	28259
Rural Interstate	48	256	2217004	792494	37000	60	2	20	0.0	5	42	315	77	109-	326
Urban Collector	1097	591	1837463	826504	75554	24	347	3606	2.3	1243	12927	38492	70	33609-	86493
Urban Minor Arterial	1390	641	3888965	1701343	145107	27	1408	14286	4.4	5073	51487	92180	149	133865-	349653
Urban Principal Arteri	1160	722	6866287	2934204	241262	28	4009	40785	7.1	14042	142870	210900	267	371462-	968763
Urban Interstate	216	509	6099625	1955207	105075	58	3440	34860	6.0	7959	80654	6013	210	209702-	548254
RAMPS	143	53	301051	137998	12614	24	223	2051	7.7	655	6022	7790	15	15658-	43522
SYSTEM ADDITIONS	189	171	307384	136115	12662	24	98	1058	3.8	378	4102	6290	12	10664-	26762
<b>TOTAL SYSTEM</b>	<b>5445</b>	<b>5156</b>	<b>26874098</b>	<b>10419809</b>	<b>750169</b>	<b>30</b>	<b>9905</b>	<b>100918</b>	<b>4.2</b>	<b>30267</b>	<b>308323</b>	<b>378524</b>	<b>986</b>	<b>801640-</b>	<b>2089074</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2375930	Total Daily Vehicle Miles of Travel =	26874098	Annual (x 1000) =	6987265
PM Peak Hour Vehicle Hours of Travel =	79551	Total Daily Vehicle Hours of Travel =	750169	Annual (x 1000) =	195044
PM Pk Hr VOC Emissions (Moble 6)(KG)=	986	Total Daily VOC Emissions (Mobile 6)(KG)=	10420	Annual (x 1000) =	2709
PM Peak Hour Time Cost (\$) =	650725	Total Daily Time Cost (\$) =	6136383	Annual (x 1000) =	1595459
PM Peak Hour Operating Cost (\$) =	416784	Total Daily Operating Cost (\$) =	4140517	Annual (x 1000) =	1076535
PM Peak Hour Accident Cost (\$) =	376527	Total Daily Accident Cost (\$) =	4347385	Annual (x 1000) =	1130320 (@ state avg = 1271345)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1444036	TOTAL DAILY USER COSTS (\$) =	14624284	ANNUAL (x 1000) =	3802314

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 6538.829 Total (pm) excess node delay time = 3378.577

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

## NOx Emissions for Year 2015 with 2007-12 TIP and Financially Constrained New Visions Plan

04-23-2007

13:12:14

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k34-B15.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily NOx	Daily Daily VHT										
Rural Minor Collector	516	1097	1504272	692298	39083	38	19	173	0.1	48	432	3085	65	1123-	3155
Rural Major Collector	334	540	1338360	625745	31642	42	36	428	0.3	95	1125	4279	60	2924-	6968
Rural Minor Arterial	224	389	1430141	784759	28309	51	157	1850	1.2	368	4340	3773	76	11283-	26920
Rural Principal Arteri	128	188	1083556	579884	21861	50	167	1800	1.6	400	4323	5407	57	11241-	28259
Rural Interstate	48	256	2217004	1833556	37000	60	2	20	0.0	5	42	315	179	109-	326
Urban Collector	1097	591	1837463	755820	75554	24	347	3606	2.3	1243	12927	38492	64	33609-	86493
Urban Minor Arterial	1390	641	3888965	1692020	145107	27	1408	14286	4.4	5073	51487	92180	147	133865-	349653
Urban Principal Arteri	1160	722	6866287	2931118	241262	28	4009	40785	7.1	14042	142870	210900	265	371462-	968763
Urban Interstate	216	509	6099625	2917853	105075	58	3440	34860	6.0	7959	80654	6013	307	209702-	548254
RAMPS	143	53	301051	143845	12614	24	223	2051	7.7	655	6022	7790	15	15658-	43522
SYSTEM ADDITIONS	189	171	307384	124370	12662	24	98	1058	3.8	378	4102	6290	11	10664-	26762
<b>TOTAL SYSTEM</b>	<b>5445</b>	<b>5156</b>	<b>26874098</b>	<b>13081260</b>	<b>750169</b>	<b>36</b>	<b>9905</b>	<b>100918</b>	<b>4.2</b>	<b>30267</b>	<b>308323</b>	<b>378524</b>	<b>1245</b>	<b>801640-</b>	<b>2089074</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2375930	Total Daily Vehicle Miles of Travel =	26874098	Annual (x 1000) =	6987265
PM Peak Hour Vehicle Hours of Travel =	79551	Total Daily Vehicle Hours of Travel =	750169	Annual (x 1000) =	195044
PM Pk Hr NOx Emissions (Moble 6)(KG)=	1245	Total Daily NOx Emissions (Mobile 6)(KG)=	13081	Annual (x 1000) =	3401
PM Peak Hour Time Cost (\$) =	650725	Total Daily Time Cost (\$) =	6136383	Annual (x 1000) =	1595459
PM Peak Hour Operating Cost (\$) =	416784	Total Daily Operating Cost (\$) =	4140517	Annual (x 1000) =	1076535
PM Peak Hour Accident Cost (\$) =	376527	Total Daily Accident Cost (\$) =	4347385	Annual (x 1000) =	1130320 (@ state avg = 1271345)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1444036	TOTAL DAILY USER COSTS (\$) =	14624284	ANNUAL (x 1000) =	3802314

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 6538.829 Total (pm) excess node delay time = 3378.577

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# VOC Emissions for Year 2025 No Build

04-23-2007

13:12:02

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k07-NB25.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
				Daily Daily HC	Daily Daily VHT									
Rural Minor Collector	519	1097	1869183	402378	49243	38	52	553	0.3	152	1603	6134	38	4168- 10613
Rural Major Collector	334	537	1694051	348757	40463	42	122	1383	0.8	293	3309	6363	34	8604- 21057
Rural Minor Arterial	222	389	1719697	334361	34500	50	311	3425	1.9	739	8151	5217	33	21193- 52643
Rural Principal Arteri	122	185	1219799	237617	24860	49	334	3809	2.9	819	9340	7552	24	24284- 59123
Rural Interstate	48	256	2438674	464111	40625	60	47	503	0.2	100	1072	495	46	2788- 7028
Urban Collector	1098	591	2353040	681726	104938	22	1232	12616	6.4	4919	50365	69543	60	130949-340174
Urban Minor Arterial	1394	641	4915042	1400205	203869	24	5581	53837	13.8	20753	200208	152597	131	520541-1403272
Urban Principal Arteri	1134	684	8039031	2280884	328848	24	12879	128861	19.5	49142	491687	351940	225	1278386-3368680
Urban Interstate	228	507	7204689	1333562	128653	56	8632	80794	12.7	20548	192323	11342	153	500039-1374054
RAMPS	144	52	383978	117569	17391	22	930	8976	25.2	2579	24896	13497	14	64729-174420
SYSTEM ADDITIONS	164	144	383262	138470	20060	19	1177	10299	37.1	4239	37090	11678	13	96434-276764
<b>TOTAL SYSTEM</b>	<b>5407</b>	<b>5082</b>	<b>32220456</b>	<b>7739638</b>	<b>993450</b>	<b>24</b>	<b>31297</b>	<b>305058</b>	<b>11.0</b>	<b>104281</b>	<b>1020044</b>	<b>636358</b>		<b>7702652115-7087828</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2845467	Total Daily Vehicle Miles of Travel =	32220456	Annual (x 1000) =	8377319
PM Peak Hour Vehicle Hours of Travel =	117077	Total Daily Vehicle Hours of Travel =	993450	Annual (x 1000) =	258297
PM Pk Hr VOC Emissions (Moble 6)(KG)=	770	Total Daily VOC Emissions (Mobile 6)(KG)=	7740	Annual (x 1000) =	2012
PM Peak Hour Time Cost (\$) =	957690	Total Daily Time Cost (\$) =	8126417	Annual (x 1000) =	2112869
PM Peak Hour Operating Cost (\$) =	546437	Total Daily Operating Cost (\$) =	5098096	Annual (x 1000) =	1325505
PM Peak Hour Accident Cost (\$) =	546556	Total Daily Accident Cost (\$) =	6318093	Annual (x 1000) =	1642704 (@ state avg = 1532923)
TOTAL PM PEAK HOUR USER COSTS (\$) =	2050684	TOTAL DAILY USER COSTS (\$) =	19542606	ANNUAL (x 1000) =	5081077

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 21936.27 Total (pm) excess node delay time = 9369.106

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# NOx Emissions for Year 2025 No Build

04-23-2007

13:12:04

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k07-NB25.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
				Daily NOx	Daily VHT									
Rural Minor Collector	519	1097	1869183	408071	49243	38	52	553	0.3	152	1603	6134	39	4168- 10613
Rural Major Collector	334	537	1694051	373493	40463	42	122	1383	0.8	293	3309	6363	36	8604- 21057
Rural Minor Arterial	222	389	1719697	423909	34500	50	311	3425	1.9	739	8151	5217	41	21193- 52643
Rural Principal Arteri	122	185	1219799	291694	24860	49	334	3809	2.9	819	9340	7552	29	24284- 59123
Rural Interstate	48	256	2438674	798513	40625	60	47	503	0.2	100	1072	495	79	2788- 7028
Urban Collector	1098	591	2353040	486429	104938	22	1232	12616	6.4	4919	50365	69543	42	130949-340174
Urban Minor Arterial	1394	641	4915042	1042500	203869	24	5581	53837	13.8	20753	200208	152597	95	520541-1403272
Urban Principal Arteri	1134	684	8039031	1655025	328848	24	12879	128861	19.5	49142	491687	351940	160	1278386-3368680
Urban Interstate	228	507	7204689	1465365	128653	56	8632	80794	12.7	20548	192323	11342	162	500039-1374054
RAMPS	144	52	383978	82822	17391	22	930	8976	25.2	2579	24896	13497	9	64729-174420
SYSTEM ADDITIONS	164	144	383262	79855	20060	19	1177	10299	37.1	4239	37090	11678	7	96434-276764
<b>TOTAL SYSTEM</b>	<b>5407</b>	<b>5082</b>	<b>32220456</b>	<b>7107673</b>	<b>993450</b>	<b>32</b>	<b>31297</b>	<b>305058</b>	<b>11.0</b>	<b>104281</b>	<b>1020044</b>	<b>636358</b>	<b>7002652115-7087828</b>	

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2845467	Total Daily Vehicle Miles of Travel =	32220456	Annual (x 1000) =	8377319
PM Peak Hour Vehicle Hours of Travel =	117077	Total Daily Vehicle Hours of Travel =	993450	Annual (x 1000) =	258297
PM Pk Hr NOx Emissions (Moble 6)(KG)=	700	Total Daily NOx Emissions (Mobile 6)(KG)=	7108	Annual (x 1000) =	1848
PM Peak Hour Time Cost (\$) =	957690	Total Daily Time Cost (\$) =	8126417	Annual (x 1000) =	2112869
PM Peak Hour Operating Cost (\$) =	546437	Total Daily Operating Cost (\$) =	5098096	Annual (x 1000) =	1325505
PM Peak Hour Accident Cost (\$) =	546556	Total Daily Accident Cost (\$) =	6318093	Annual (x 1000) =	1642704 (@ state avg = 1532923)
TOTAL PM PEAK HOUR USER COSTS (\$) =	2050684	TOTAL DAILY USER COSTS (\$) =	19542606	ANNUAL (x 1000) =	5081077

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 21936.27 Total (pm) excess node delay time = 9369.106

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# VOC Emissions for Year 2025 with 2007-12 TIP and Financially Constrained New Visions Plan

04-23-2007

13:12:26

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k34-B25.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily HC	Daily Daily VHT										
Rural Minor Collector	517	1097	1654709	354799	43232	38	30	322	0.2	81	872	4562	33	2267-	5707
Rural Major Collector	334	540	1465943	301726	34886	42	61	638	0.4	152	1598	4573	29	4155-	10610
Rural Minor Arterial	224	389	1518905	295092	30161	50	165	1892	1.2	388	4445	3972	29	11558-	28072
Rural Principal Arteri	128	188	1137691	222386	23158	49	267	2960	2.5	639	7093	6297	22	18442-	45607
Rural Interstate	48	256	2243755	432643	37557	60	7	78	0.0	11	134	424	42	347-	824
Urban Collector	1098	591	2021437	556985	85399	24	573	5934	3.4	2119	21932	48091	48	57024-	147152
Urban Minor Arterial	1389	641	4251388	1138535	163963	26	2274	23083	6.5	8241	83652	113108	102	217495-	568050
Urban Principal Arteri	1160	722	7450902	1956718	274379	27	6352	65656	10.4	22800	235683	263622	183	612775-	1582601
Urban Interstate	216	509	6507673	1194934	113603	57	5202	48332	8.5	12127	112680	6671	132	292969-	808819
RAMPS	143	53	324248	90641	13780	24	310	2913	10.0	896	8405	9083	10	21854-	59959
SYSTEM ADDITIONS	193	171	339545	93413	14529	23	183	1845	6.4	711	7174	7678	8	18652-	48898
<b>TOTAL SYSTEM</b>	<b>5450</b>	<b>5156</b>	<b>28916172</b>	<b>6637873</b>	<b>834648</b>	<b>28</b>	<b>15423</b>	<b>153654</b>	<b>6.0</b>	<b>48165</b>	<b>483669</b>	<b>468082</b>		<b>6381257538-</b>	<b>3306297</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2554190	Total Daily Vehicle Miles of Travel =	28916172	Annual (x 1000) =	7518205
PM Peak Hour Vehicle Hours of Travel =	91667	Total Daily Vehicle Hours of Travel =	834648	Annual (x 1000) =	217008
PM Pk Hr VOC Emissions (Moble 6)(KG)=	638	Total Daily VOC Emissions (Mobile 6)(KG)=	6638	Annual (x 1000) =	1726
PM Peak Hour Time Cost (\$) =	749837	Total Daily Time Cost (\$) =	6827419	Annual (x 1000) =	1775129
PM Peak Hour Operating Cost (\$) =	463813	Total Daily Operating Cost (\$) =	4500935	Annual (x 1000) =	1170243
PM Peak Hour Accident Cost (\$) =	436255	Total Daily Accident Cost (\$) =	5043726	Annual (x 1000) =	1311369 (@ state avg = 1377127)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1649905	TOTAL DAILY USER COSTS (\$) =	16372079	ANNUAL (x 1000) =	4256741

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 10574.41 Total (pm) excess node delay time = 4866.651

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

# NOx Emissions for Year 2025 with 2007-12 TIP and Financially Constrained New Visions Plan

04-23-2007

13:12:29

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k34-B25.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)	
				Daily Daily NOx	Daily Daily VHT										
Rural Minor Collector	517	1097	1654709	362150	43232	38	30	322	0.2	81	872	4562	34	2267-	5707
Rural Major Collector	334	540	1465943	326064	34886	42	61	638	0.4	152	1598	4573	31	4155-	10610
Rural Minor Arterial	224	389	1518905	380130	30161	50	165	1892	1.2	388	4445	3972	37	11558-	28072
Rural Principal Arteri	128	188	1137691	274645	23158	49	267	2960	2.5	639	7093	6297	27	18442-	45607
Rural Interstate	48	256	2243755	755410	37557	60	7	78	0.0	11	134	424	74	347-	824
Urban Collector	1098	591	2021437	413859	85399	24	573	5934	3.4	2119	21932	48091	35	57024-	147152
Urban Minor Arterial	1389	641	4251388	901066	163963	26	2274	23083	6.5	8241	83652	113108	80	217495-	568050
Urban Principal Arteri	1160	722	7450902	1539323	274379	27	6352	65656	10.4	22800	235683	263622	142	612775-	1582601
Urban Interstate	216	509	6507673	1384698	113603	57	5202	48332	8.5	12127	112680	6671	148	292969-	808819
RAMPS	143	53	324248	70405	13780	24	310	2913	10.0	896	8405	9083	7	21854-	59959
SYSTEM ADDITIONS	193	171	339545	68466	14529	23	183	1845	6.4	711	7174	7678	6	18652-	48898
<b>TOTAL SYSTEM</b>	<b>5450</b>	<b>5156</b>	<b>28916172</b>	<b>6476221</b>	<b>834648</b>	<b>35</b>	<b>15423</b>	<b>153654</b>	<b>6.0</b>	<b>48165</b>	<b>483669</b>	<b>468082</b>		<b>6221257538-</b>	<b>3306297</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2554190	Total Daily Vehicle Miles of Travel =	28916172	Annual (x 1000) =	7518205
PM Peak Hour Vehicle Hours of Travel =	91667	Total Daily Vehicle Hours of Travel =	834648	Annual (x 1000) =	217008
PM Pk Hr NOx Emissions (Moble 6)(KG)=	622	Total Daily NOx Emissions (Mobile 6)(KG)=	6476	Annual (x 1000) =	1684
PM Peak Hour Time Cost (\$) =	749837	Total Daily Time Cost (\$) =	6827419	Annual (x 1000) =	1775129
PM Peak Hour Operating Cost (\$) =	463813	Total Daily Operating Cost (\$) =	4500935	Annual (x 1000) =	1170243
PM Peak Hour Accident Cost (\$) =	436255	Total Daily Accident Cost (\$) =	5043726	Annual (x 1000) =	1311369 (@ state avg = 1377127)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1649905	TOTAL DAILY USER COSTS (\$) =	16372079	ANNUAL (x 1000) =	4256741

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 10574.41 Total (pm) excess node delay time = 4866.651

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 4/07.

### VOC Emissions for Year 2030 No Build

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k07-NB30.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
				Daily Daily HC	Daily Daily VHT									
Rural Minor Collector	519	1097	1964655	409685	52686	37	122	1454	0.7	410	4903	10003	39	12748- 30205
Rural Major Collector	334	537	1779640	365056	44267	40	225	2555	1.3	587	6668	11444	36	17337- 42319
Rural Minor Arterial	222	389	1768877	345648	37732	47	432	5031	2.6	1177	13697	11550	34	35611- 85674
Rural Principal Arteri	122	185	1255358	246760	28136	45	517	5941	4.4	1423	16358	14927	26	42530-103039
Rural Interstate	48	256	2367784	439427	42161	56	43	437	0.2	93	943	5389	44	2452- 6423
Urban Collector	1098	591	2502705	775310	123660	20	2412	24204	11.7	10748	107881	103350	70	280490-737688
Urban Minor Arterial	1395	641	5186660	1643895	259747	20	9178	88605	21.5	37286	359979	269772	159	935945-2521947
Urban Principal Arteri	1134	684	8362827	2703643	432378	19	21586	214144	31.4	92214	914828	592213	278	2378552-6300981
Urban Interstate	228	507	7480888	1471215	184170	41	10732	119312	15.2	26128	290488	140401	174	755268-1866644
RAMPS	144	52	403929	144721	23011	18	1420	13345	36.6	4328	40658	24303	18	105711-289791
SYSTEM ADDITIONS	165	144	407111	130051	30691	13	2018	17533	59.9	7726	67111	30926	13	174490-503134
<b>TOTAL SYSTEM</b>	<b>5409</b>	<b>5082</b>	<b>33480428</b>	<b>8675406</b>	<b>1258639</b>	<b>20</b>	<b>48684</b>	<b>492561</b>	<b>16.5</b>	<b>182121</b>	<b>1823513</b>	<b>1214277</b>	<b>8904741135</b>	<b>-12487843</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2954714	Total Daily Vehicle Miles of Travel =	33480428	Annual (x 1000) =	8704911
PM Peak Hour Vehicle Hours of Travel =	151352	Total Daily Vehicle Hours of Travel =	1258639	Annual (x 1000) =	327246
PM Pk Hr VOC Emissions (Moble 6)(KG)=	890	Total Daily VOC Emissions (Mobile 6)(KG)=	8675	Annual (x 1000) =	2256
PM Peak Hour Time Cost (\$) =	1238057	Total Daily Time Cost (\$) =	10295666	Annual (x 1000) =	2676873
PM Peak Hour Operating Cost (\$) =	619781	Total Daily Operating Cost (\$) =	5433678	Annual (x 1000) =	1412756
PM Peak Hour Accident Cost (\$) =	627646	Total Daily Accident Cost (\$) =	7270800	Annual (x 1000) =	1890408 (@ state avg = 1599418)
TOTAL PM PEAK HOUR USER COSTS (\$) =	2485484	TOTAL DAILY USER COSTS (\$) =	23000144	ANNUAL (x 1000) =	5980037

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 27503.77 Total (pm) excess node delay time = 21186.47

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

VOC emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.

Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 5/04. Assumes fed. veh. stds. No I & M, no reform gas.

### NOx Emissions for Year 2030 No Build

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k07-NB30.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
				Daily Nox	Daily VHT									
Rural Minor Collector	519	1097	1964655	334942	52686	37	122	1454	0.7	410	4903	10003	32	12748- 30205
Rural Major Collector	334	537	1779640	305177	44267	40	225	2555	1.3	587	6668	11444	30	17337- 42319
Rural Minor Arterial	222	389	1768877	324490	37732	47	432	5031	2.6	1177	13697	11550	32	35611- 85674
Rural Principal Arteri	122	185	1255358	222637	28136	45	517	5941	4.4	1423	16358	14927	23	42530-103039
Rural Interstate	48	256	2367784	511150	42161	56	43	437	0.2	93	943	5389	50	2452- 6423
Urban Collector	1098	591	2502705	448626	123660	20	2412	24204	11.7	10748	107881	103350	40	280490-737688
Urban Minor Arterial	1395	641	5186660	929373	259747	20	9178	88605	21.5	37286	359979	269772	87	935945-%2521947
Urban Principal Arteri	1134	684	8362827	1468706	432378	19	21586	214144	31.4	92214	914828	592213	146	2378552-%6300981
Urban Interstate	228	507	7480888	1147293	184170	41	10732	119312	15.2	26128	290488	140401	130	755268-%1866644
RAMPS	144	52	403929	69796	23011	18	1420	13345	36.6	4328	40658	24303	8	105711-289791
SYSTEM ADDITIONS	165	144	407111	69938	30691	13	2018	17533	59.9	7726	67111	30926	7	174490-503134
<b>TOTAL SYSTEM</b>	<b>5409</b>	<b>5082</b>	<b>33480428</b>	<b>5832124</b>	<b>1258639</b>	<b>27</b>	<b>48684</b>	<b>492561</b>	<b>16.5</b>	<b>182121</b>	<b>1823513</b>	<b>1214277</b>	<b>5844741135-%12487843</b>	

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2954714	Total Daily Vehicle Miles of Travel =	33480428	Annual (x 1000) =	8704911
PM Peak Hour Vehicle Hours of Travel =	151352	Total Daily Vehicle Hours of Travel =	1258639	Annual (x 1000) =	327246
PM Pk Hr NOx Emissions (Moble 6)(KG)=	584	Total Daily NOx Emissions (Mobile 6)(KG)=	5832	Annual (x 1000) =	1516
PM Peak Hour Time Cost (\$) =	1238057	Total Daily Time Cost (\$) =	10295666	Annual (x 1000) =	2676873
PM Peak Hour Operating Cost (\$) =	619781	Total Daily Operating Cost (\$) =	5433678	Annual (x 1000) =	1412756
PM Peak Hour Accident Cost (\$) =	627646	Total Daily Accident Cost (\$) =	7270800	Annual (x 1000) =	1890408 (@ state avg = 1599418)
TOTAL PM PEAK HOUR USER COSTS (\$) =	2485484	TOTAL DAILY USER COSTS (\$) =	23000144	ANNUAL (x 1000) =	5980037

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 27503.77 Total (pm) excess node delay time = 21186.47  
 PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.  
 DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.  
 THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6  
 VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.  
 NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.  
 Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 5/04. Assumes fed. veh. stds. No I & M, no reform gas.

### VOC Emissions for Year 2030 with 2007-12 TIP and Financially Constrained New Visions Plan

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k34-B30.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
				Daily Daily HC	Daily Daily VHT									
Rural Minor Collector	517	1097	1694736	350766	44881	38	65	690	0.4	198	2087	6131	33	5425- 13842
Rural Major Collector	334	540	1512011	308902	36831	41	90	1045	0.6	252	2918	7654	30	7587- 18298
Rural Minor Arterial	224	389	1542057	299396	31831	48	218	2563	1.5	586	6902	7607	29	17946- 42879
Rural Principal Arteri	128	188	1169884	230612	25897	45	369	4311	3.4	977	11411	12595	24	29668- 71226
Rural Interstate	48	256	2139846	399161	37376	57	2	18	0.0	5	38	2763	39	100- 300
Urban Collector	1100	591	2110752	610046	95784	22	1054	10544	6.1	4390	43928	65306	53	114212-300951
Urban Minor Arterial	1390	641	4388532	1245481	189732	23	3516	34558	9.7	13917	136770	164926	114	355603-947583
Urban Principal Arteri	1160	722	7658625	2196138	335195	23	10543	106839	16.7	42658	432256	404010	211	1123866-2938347
Urban Interstate	216	509	6639707	1249655	146498	45	6030	69372	9.6	14287	164368	89451	141	427356-1035089
RAMPS	143	53	332431	100956	15806	21	526	5095	16.5	1646	15934	13855	11	41429-111425
SYSTEM ADDITIONS	192	171	354499	100511	16409	22	288	2730	9.7	1202	11396	10747	9	29631- 80741
<b>TOTAL SYSTEM</b>	<b>5452</b>	<b>5156</b>	<b>29543034</b>	<b>7091617</b>	<b>976241</b>	<b>24</b>	<b>22702</b>	<b>237766</b>	<b>8.7</b>	<b>80117</b>	<b>828009</b>	<b>785044</b>	<b>6942152823</b>	<b>-5560681</b>

SYSTEM SUMMARIES:

PM Peak Hour Vehicle Miles of Travel =	2607777	Total Daily Vehicle Miles of Travel =	29543034	Annual (x 1000) =	7681189
PM Peak Hour Vehicle Hours of Travel =	109703	Total Daily Vehicle Hours of Travel =	976241	Annual (x 1000) =	253823
PM Pk Hr VOC Emissions (Moble 6)(KG)=	694	Total Daily VOC Emissions (Mobile 6)(KG)=	7092	Annual (x 1000) =	1844
PM Peak Hour Time Cost (\$) =	897368	Total Daily Time Cost (\$) =	7985649	Annual (x 1000) =	2076269
PM Peak Hour Operating Cost (\$) =	508052	Total Daily Operating Cost (\$) =	4690478	Annual (x 1000) =	1219524
PM Peak Hour Accident Cost (\$) =	483391	Total Daily Accident Cost (\$) =	5600627	Annual (x 1000) =	1456163 (@ state avg = 1413901)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1888811	TOTAL DAILY USER COSTS (\$) =	18276754	ANNUAL (x 1000) =	4751956

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 12097.14 Total (pm) excess node delay time = 10612.24

PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.

DAILY COSTS EXPANDED BY 260 TO REPRESENT ANNUAL. (MINIMUM) WARRANTED INVESTMENT = 10 X ANNUAL EXCESS DELAY COSTS.

THE RANGE OF WARRANTED INVESTMENT IS BASED UPON A RANGE OF VALUES OF TIME SPENT IN UNACCEPTABLE LEVELS OF CONGESTION BETWEEN \$8.18 AND \$24.54

EMISSION VALUES: Hourly VOC emissions, from M6HC-04.txt. Using Mobile 6

VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.

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Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 5/04. Assumes fed. veh. stds. No I & M, no reform gas.

### NOx Emissions for Year 2030 with 2007-12 TIP and Financially Constrained New Visions Plan

USER COST ACCOUNTING OUTPUT  
 FOR: c:\e\k34-B30.LL7  
 PM PEAK HOUR CONDITIONS AND EXCESS DELAY  
 SUMMARY BY FUNCTIONAL CLASS

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS.

FUNCTIONAL CLASSIFICATION	NON-ZERO CASES	LANE MILES	Daily VMT	Grams		Daily AVG. SPEED	PM HR EXCESS VHD	PM HR EXCESS COST	PM EXC VHD/VMT (x 1000)	DAILY EXCESS VHD	DAILY EXCESS COSTS	ANN DEL COSTS (THOU.\$)	HRLY HC EMIS'NS (KG)	WARRANTED INVESTMENT (THOU. \$)
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Rural Major Collector	334	540	1512011	262486	36831	41	90	1045	0.6	252	2918	7654	25	7587- 18298
Rural Minor Arterial	224	389	1542057	287485	31831	48	218	2563	1.5	586	6902	7607	28	17946- 42879
Rural Principal Arteri	128	188	1169884	210289	25897	45	369	4311	3.4	977	11411	12595	21	29668- 71226
Rural Interstate	48	256	2139846	477720	37376	57	2	18	0.0	5	38	2763	46	100- 300
Urban Collector	1100	591	2110752	371936	95784	22	1054	10544	6.1	4390	43928	65306	32	114212-300951
Urban Minor Arterial	1390	641	4388532	778716	189732	23	3516	34558	9.7	13917	136770	164926	70	355603-947583
Urban Principal Arteri	1160	722	7658625	1335488	335195	23	10543	106839	16.7	42658	432256	404010	126	1123866-2938347
Urban Interstate	216	509	6639707	1058009	146498	45	6030	69372	9.6	14287	164368	89451	115	427356-1035089
RAMPS	143	53	332431	56557	15806	21	526	5095	16.5	1646	15934	13855	6	41429-111425
SYSTEM ADDITIONS	192	171	354499	61222	16409	22	288	2730	9.7	1202	11396	10747	6	29631- 80741
<b>TOTAL SYSTEM</b>	<b>5452</b>	<b>5156</b>	<b>29543034</b>	<b>5189297</b>	<b>976241</b>	<b>30</b>	<b>22702</b>	<b>237766</b>	<b>8.7</b>	<b>80117</b>	<b>828009</b>	<b>785044</b>	<b>5022152823</b>	<b>-5560681</b>

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PM Peak Hour Vehicle Hours of Travel =	109703	Total Daily Vehicle Hours of Travel =	976241	Annual (x 1000) =	253823
PM Pk Hr NOx Emissions (Moble 6)(KG)=	502	Total Daily NOx Emissions (Mobile 6)(KG)=	5189	Annual (x 1000) =	1349
PM Peak Hour Time Cost (\$) =	897368	Total Daily Time Cost (\$) =	7985649	Annual (x 1000) =	2076269
PM Peak Hour Operating Cost (\$) =	508052	Total Daily Operating Cost (\$) =	4690478	Annual (x 1000) =	1219524
PM Peak Hour Accident Cost (\$) =	483391	Total Daily Accident Cost (\$) =	5600627	Annual (x 1000) =	1456163 (@ state avg = 1413901)
TOTAL PM PEAK HOUR USER COSTS (\$) =	1888811	TOTAL DAILY USER COSTS (\$) =	18276754	ANNUAL (x 1000) =	4751956

EXCESS DELAY COMPARED TO LOS D/ LOS E BREAKPOINT CONDITIONS. Total (pm) excess link travel time = 12097.14 Total (pm) excess node delay time = 10612.24  
 PM PEAK HOUR VALUES EXPANDED TO DAILY BASED UPON 24-HOUR DISTRIBUTION AND LINK AND INTERSECTION V/C RATIOS.  
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EMISSION VALUES: Hourly NOx emissions, from M6N-04.txt. Using Mobile 6  
 VOC = Volatile Organic Compounds; NOx= Nitrogen Oxides; CO = Carbon Monoxide.  
 NOx emissions calculated by link using year-specific, speed-specific, functional class-specific mixed traffic emission rates per VMT.  
 Emission rates calculated by NYSDOT using USEPA's MOBILE 6, rec'd 5/04. Assumes fed. veh. stds. No I & M, no reform gas.